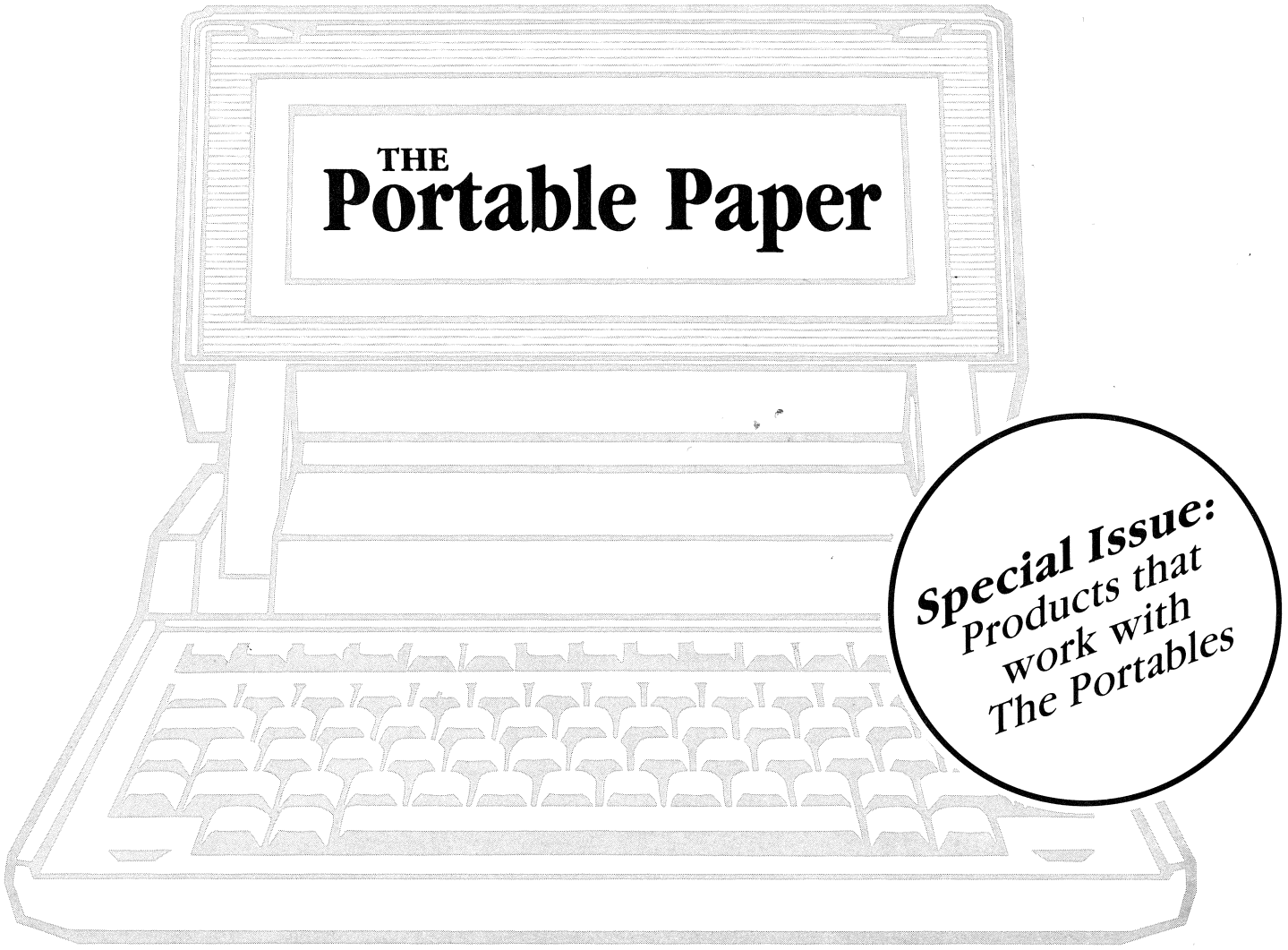
Volume 2, Number 1 The HP Portable/Portable Plus Users Newsletter January / February, 1987

THE Portable Paper



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Ultimate Utilities

Read this list. It may look long and boring, but it can save you an incredible amount of time and effort.

It's a list of the more than 50 programs on *Portable Utilities Disk, Volume 1: DOS Tools.* Each program performs a specific task to make life with your Portable more enjoyable and productive.

The programs are all in the public domain, which means that if you searched long enough you could find them for free on various electronic bulletin boards, in magazines, and in the archives of local user groups. But consider this: Even if you had the time to track this many programs down, what about evaluating them and making sense of the documentation? It would be a formidable task, but we have good news: You don't have to do it—we've already done it for you!

That's right—we've combed through hundreds of public domain utility programs that run on the Portables and HP150, and have selected only the best ones for inclusion in *Portable Utilities Disk, Volume 1: DOS. Tools.* We've not only made sense of the documentation, but in many cases we've actually rewritten it. (**A printed, 65-page user manual containing program documentation and plenty of examples in included with the disk.** The manual is *conveniently indexed by subject*, so all you have to do is look up the name of the task you want done. You don't have to remember the names of the programs.)

And we've even changed some of the programs themselves so they work better and so their message displays are easier to understand. (Given the state of the art in writing and testing software, there's no guarantee that every item of software works as documented without a hitch. However, most of the testing and evaluating was done by Hal Goldstein, publisher of The Portable Paper, and by Gary Goodman and Thomas Page. Anyone who has read Gary's and Tom's articles in past issues of The Portable Paper already knows of their conscientiousness and thoroughness.)

So look through the list. If even *one* program proves useful, *DOS Tools* could pay for itself immediately. With more than 50 documented and tested programs to try out and use, it's the bargain of the century. Order yours today.

Portable Utilities Disk, Volume 1:
DOS Tools $49.95
($39.95 for Portable Paper subscribers)

Contents of Portable Utilities Disk Vol. 1: DOS Tools

ADDCOL.COM Joins two files horizontally by appending corresponding lines.

ARC512.ARC Archived ARC file compression and library utility.

ARCE.COM Extracts ARChive files from ARC 5.12 and previous versions.

ASK.COM Adds interactive capability to batch files. Prompts user with message and waits for yes/no response.

BEEP.COM Makes a beep sound.

CHANGE.COM Changes or displays file attributes (read-only, archive, system, hidden).

CLEAN.COM Converts WordStar HP150 or Portable Plus MemoMaker document files to ASCII and removes control codes.

COPYNEW.COM Backs up files if no identical file on the destination disk. Also backs up whole directory structure creating matching subdirectories.

CPU.COM Displays computer's clock speed.

CVTBIN.COM Converts files from ASCII to binary when downloaded with CompuServe READ command.

CYPHER.COM Enciphers and deciphers a file to keep it confidential.

DIRALL.COM Displays attributes and pathnames for ALL files on a disk.

DIRS.COM Gives total disk space occupied by a set of files.

DUMP.COM Dumps and edits a disk or file in hexadecimal and ASCII.

FDATE.COM Changes the time-date stamp on a file.

FDUMP.COM Lists a file in hexadecimal and ASCII.

FF.COM Sends a form feed to the printer.

FGREP.COM Searches a group of files for a specified string.

HC.COM Converts binary files to/from hexadecimal ASCII files.

HP IBM.COM Does a "best fit" translation from HP ROMAN 8 character set to IBM PC Line Draw character set.

IBM HP.COM Does a "best fit" translation from IBM PC Line Draw character set to HP ROMAN 8 character set.

INSTALLP.COM Automates installing an application program on RAM disk—the HP Portable/Portable Plus Install Utility Program.

LABEL.COM Labels or changes the label name on a disk.

LC.COM Counts lines in each file; useful in determining amount of paper needed to print.

LF.COM Sends a line feed to the printer.

LJET.COM LaserJet printer configuration program for the HP Portable. Makes selection LaserJet format easier.

MMTOP.COM Causes Portable Plus MemoMaker to print without usual 5-line top margin.

MOVE.COM Moves one file to another directory without copying.

MOVEALL.COM Moves a set of files to another directory without copying.

OFF.COM Shuts off the HP Portable from DOS.

PACK.COM Packs a disk. Does not have subdirectories bug of earlier version.

PC.EXE Allows some IBM programs to be run on HP150.

PCBOSS.COM File manager for IBM PC and compatibles only.

PRINTIT.COM Print formatting program, simple but effective.

PRNCONF.COM Allows ThinkJet printer to function as Epson printer; also sends escape sequences to the PRN device.

RAMDSK.ARC Archived utility for HP150 only; creates internal RAM disk.

RENDIR.COM Renames subdirectories.

RNGNAME.COM Displays and restores range names for Lotus worksheet.

ROMAN8.WKS Provides ability to enter any Roman8 character into Lotus worksheet.

SDL.COM Produces directory listings sorted by name, size, date, or extension.

SEPARATE.COM Breaks large text files into smaller files for MemoMaker.

SM.COM SpaceMaker. Converts. EXE files to .COM files and thus saves disk storage space and disk access time.

SQPC.COM Squeezes files to make them take up less space. Unsqueeze with TY.

TEE.COM Causes a program or file to be output to both the screen and a file or printer.

TJETA.COM Configures ThinkJet printer easily from the HP Portable.

TOWS.COM Converts ASCII document files to WordStar and Portable Plus MemoMaker format for editing and reformatting.

TRANSLIT.COM Converts one or more characters of one file to different character(s) and copies result to second file.

TREEDIR.COM Displays names of all files in each directory along with date, time and file size.

TRIM.COM Extracts selected columns from a file.

TY.COM Unsqueezes files squeezed by SQPC.

VDL.COM Allows user to selectively delete files from a group of files. Program lists files one by one and asks user whether to delete.

WAIT.COM Delays execution of a batch file until specified time.

WD.COM Saves and restores the working directory.

WHEAROUT.COM Gives percent of wear on disk in HP 9114 disk drive.

WHEREIS.COM Searches disk to find the specified file.

APPENDIX A Describes the contents of subdirectories/HP110,/SOURCE,/123DEMO found on the *DOS Tools* disk.

UTILS.DOC Reprints on disk *The Portable Paper* Vol 1, Issue 4, utilities. Gives practical examples of many of the files on the DOSTools disk.

RUNS ON:	
HP Portable	●
Portable Plus	●
HP150	●
IBM PC / HP Vectra	●

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PUBLISHER'S MESSAGE

Hal Goldstein

Toshiba, Zenith, yes - IBM, these are names you are hearing about in the Portable computer marketplace. Perhaps you have second thoughts about your HP110 or Portable Plus. After all, you could be getting true IBM compatibility, built-in mechanical disk drives, a faster processor, a hard disk, a more readable screen, or a better keyboard —probably for less money.

Despite the advances represented by these new machines, I think HP Portables are the only full-featured, truly portable laptops available.

What makes The HP Portable unique in the MS DOS world of laptops is its ROM based software and RAM disk capability. HP has taken the position that mechanical disk drives attached to a unit decreases portability. A mechanical disk drive takes much more power to run, weighs more, and is much less rugged.

Furthermore, a mechanical disk drive is slow. Those of you used to Lotus 123 in ROM on The Portable - see how you enjoy finding the Lotus disk, waiting for Lotus to load, finding your data disk, and waiting for Lotus to retrieve a file.

It will be interesting to see what direction HP takes. My guess is that it will put a lot of effort into enhancing the Portable Plus. More RAM capacity, greater IBM compatibility, a hard disk - these are directions in which HP might be going with the Plus and with future machines.

As technologies develop, I think HP's approach of using electronic rather than mechanical means for program and data storage can only increase HP's lead in creating self-sufficient, full-functioning, truly portable computers.

We backed the right horse.

Letters

Portable Paper Is Good But Costs Too Much

Your Portable Paper is a good, informative journal. Because it is so machine-specific, almost all articles in it are relevant in some way or another. Your content is also quite dense: there is more technical information per square inch of page than any other journal I have read. Keep up the good work.

Our company, DuPont, has several hundred HP Portable Plus's just in my division alone, and I have been promoting *The Portable Paper* to my colleagues. Your subscription price is quite high, though.

I would like to see *The Portable Paper* eventually go monthly and have a subscription price of nearer $3.00/issue. It would then be somewhat easier to justify a subscription. I firmly believe you would greatly increase the number of subscriptions.

You're doing the right thing by distributing HP Portable hardware and software. Since HP has such a limited amount of Portable software and much needed accessories like the Empowerer, you will be one of the first to take up the slack. You should find this segment of your business quite lucrative. Since so many of us do not subscribe to CompuServe, please provide a library of public domain software, like the DOS Tools.

As to *The Portable Paper*'s content, I think you have a good mix of DOS, MemoMaker, Lotus, telecommunications, and miscellaneous. Ninety percent plus of the people in my organization had no previous exposure to these topics. While some of us have advanced faster than others, everyone can get something good out of *The Portable Paper*.

Now some stuff for you. The enclosed disk and article contain two items you may want to include in future products. First, an article for intermediate-level Lotus users. In keeping with your tradition of brief but substantial information, this article should fit in **Lotus B** Drive pretty well. The other submission is a Lotus template for use with HP's Z-fold Jetlabels, part number 51620L. It is useful for small lists of labels. Please consider it and its related documentation within the public domain, since I have given away copies to many of my colleagues.

If you do not consider them worthy of publication, I have enclosed a SASE for their return. Also, if you have submission requirements, send me a copy.

Larry D. Klotz, Bossier City, LA

[Ed - Thanks for the input and the articles. We currently have no submission requirement, and are happy to accept articles or outlines in any form: disk (the ideal), paper, CompuServe, or audiotape. ASCII files are the safest, but we can read most any word processing format. We are always looking for good material that is clear, succinct, and useful to a significant portion of our readership. I especially like material that contains principles that can be applied in different situations. I encourage everyone to take the initiative and send us material you think others can benefit from. As you have seen in each issue, a large number of you are already sending us comments, letters, and articles.

If we charged $3 an issue and published twelve times a year, keeping the same quality and quantity of content and form, it would be most difficult to survive. We do everything I can think of to tell HP Portable users about ourselves, but my guess is not more than 10 to 15% of HP Portable users have even heard of us. That's 15% of a small specialized market of approximately 30,000 to 40,000 users.

We have no complaints. With your patronage and support combined with relatively low overhead, we are doing well. We have about 1500 subscribers. Our best selling piece of software, PrinterTalk, has sold about 250. However, the major computer magazines have hundreds

of thousands of subscribers and gain most of their revenue from advertising.

Frankly, dealing with corporations has been one of my greatest challenges. Many companies route a single issue of The Portable Paper *to many users. (By the way you need our permission if you want to copy any portion of* The Portable Paper*).*

We would be happy to lower the rates as much as 50% for any corporation that can guarantee a certain number of subscriptions.

We would be most grateful for help from our fans out there in large corporations. Help us demonstrate to the right powers that we charge a small price for the specialized support and product information provided in The Portable Paper. *If a company is forward thinking enough to spend the hundreds of thousands of dollars to supply its staff with HP Portables, it will understand the value of supporting that machine for a few dollars a year.*

We are open to any possibility. There is enough material to come out monthly. I'm as interested as you to see how The Portable Paper *evolves.*

HP110 Baud Rate

The answer to your question of how the HP110 and another computer could 'talk' at a baud rate less than what either was set for is quite simple if you understand that each 'word' or formatted byte of data is sent at the programmed baud rate, while the entire file is sent at the rate that allows both computers to show **ready to send** and **ready to receive** signals. This means that the 110 may not be ready to send at the first opportunity that the baud rate would allow.

This type of problem has further reaching consequences. For example, if you try to send or receive data without proper handshake information, a system that does not have sufficient buffer will lose data and destroy the transmitted file. I made this discovery while trying to interface a mainframe computer to a TV character generator for election coverage. The generator was hardwired for 9600 baud but provided a **ready to receive** signal at all times. Thus, our computer sent data at a full 9600 baud rate, and we lost all but about every fifth or sixth character. Our solution was to add an external buffer and baud rate converter. We sent data at 600 baud from the mainframe, buffered it, and sent it to the character generator at the needed 9600 baud. The effective data transmission rate was 600 baud, even though the character generator was working at 9600!

Baud rate is the rate of data exchange for only one byte of data plus the required data formatting information. The effective baud rate is the total system communication rate for the entire file, including the system 'overhead' time. Your stated 2400 baud is the effective baud rate, while 19.2K is the true baud rate.

John Jacob, Mation Engineering, Charlotte, NC

PC Magazine Goodies

You published a part of my letter in the November/December 1986 issue concerning the utilities from PC Magazine. You added that the programs were available as BASIC programs from PC Magazine's bulletin board. They are in fact also available in assembly code but, more important, the executable files are also available, and that is the way I have obtained all of them.

I have tried to run one of the BASIC versions using the HP Microsoft BASIC compiler. Errors were reported, but much to my surprise, when I tried to run the program, the executable file was produced and it ran properly. The best way to obtain the programs is, of course, to get the executable files directly from PC Magazine.

You can obtain these files via modem by dialing (212) 696-0360 at 300 or 1200 baud, 8 data bits, 1 stop bit, and no parity.

Ralph J. Watson, M.D., Los Altos, CA

HP-IL Transfer Utility

As a novice in your Portable ranks, but as a user for many years of HP products, I would like to express my admiration for your nice publication: I still have to explore thoroughly to discover all the goodies for my HP110!

I bought my Portable in July without knowing that this machine's HP-IL (Interface Loop) was not the HP-IL I knew from the 41, the 75, and the 71. I have a few HP-IL devices that I thought could be talked to by the Portable. But this was my mistake to the point that I had not made inquiries about the meaning of HP-IL with the Portable. My HP-IL converter (HP82166A) and my HP-IL Video Interface (the Danish Micronix interface) were completely disregarded by my Portable. What a pity!

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Editor/Publisher
Hal Goldstein

Department Editors
Ed Keefe
Cliff Looyenga

Editorial Consultants
Steve Cooperman
Edward Goldfinger

Contributing Editors
David Hughes

Art Director
George Foster

Typography
The Word/Form Corporation

Circulation
Rita Goldstein
Frances Kempton
Glen Frank

Advertising Manager
Steve Cooperman

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Application to mail at second-class postage rates is pending at Fairfield, IA 52556. POSTMASTER: Please send address changes to Personalized Software, The Portable Paper, P.O. Box 869, Fairfield, IA 52556.

But...I have a nice binary program for the GWBASIC or MS-BASIC user; it can handle all problems concerning speaking and listening to an HP-IL device of any kind. The well-known HP-IL commands are incorporated into this program, so you can use all HP-IL devices you want with your Portable or Portable Plus. All **command** and **ready class** messages are possible with this small but powerful program. The only restriction is the fact that the program must be implemented in a BASIC environment.

On the other hand, one might consider the fact that BASIC normally is versatile enough to read files from a disk in order to print them anywhere on an HP-IL device. (I have tried several texts created with The Writer, MemoMaker, and WordStar, and all could be printed with a well fit BASIC program.) Also, the readings from a DMM (like the very expensive HP3468A) can be taken in by this little program.

If anyone is interested, I will copy this program for him/her at the modest shipping cost of $10 (or the corresponding amount in Dutch Guilders). You will receive a 3.5' disk containing the program, a brief but lucid description of commands, plus parameters needed to run the program, and my best wishes. Send your request plus check in my name to: *Mr. R.M. Franquinet, Menthensbergseweg 13, NL-6816 PR Arnhem, The Netherlands.*

I hope *The Portable Paper* will last as long as the Portable lasts.
R. Franquinet, The Netherlands

[SideWinder author Paul Grimmer's HP-IL transfer utility beta tested and approved by Looking Glass author Ed Keefe, will be ready positively by the next issue of The Portable Paper]

Compliments For The Paper, Suggestions For The Plus

To: Pat Fobes
Hewlett Packard Inc.
1000 NE Circle Blvd.
Corvallis, OR 97330

Dear Pat:

As happy owners of a Vectra and HP110 for almost a year, we're about to upgrade to a more powerful laptop portable. After surveying the field, we've narrowed the choices down to the NEC Multispeed, Toshiba 1100+, and the HP Portable Plus.

We agree that HP's philosophy of omitting built-in 720K floppy drives is made up for by having tons of electronic disk and a 'slumber mode' in which everything is preserved in RAM when you turn off the machine. Competing products forget everything in the 'off' mode, and HP's battery life is in a class by itself.

But the lack of IBM PC/XT DOS compatibility and the far-above-market prices HP charges for extra RAM in the RAM drawer put the Portable Plus at a serious price/performance disadvantage compared to the NEC and Toshiba offerings.

For us, the deciding factor in favor of going with the Plus is the incredible support for it provided by Hal Goldstein's Personalized Software company and his superb *The Portable Paper*. For example, his PrinterTalk 1.2A and Format110 4.0 utilities turn the almost useless (for our needs) MemoMaker into a powerful, versatile, useful tool.

I sincerely hope HP realizes how much Hal is helping turn the HP110 and Portable Plus into more useful tools for HP customers, and that HP will do everything possible to introduce *The Portable Paper* to past and future customers.

If we could rub Aladdin's lamp a few times for the Portable Plus, our wish list would be as follows:
—IBM PC/XT compatibility please!! Either via a new ROM BIOS or a ROM translator chip. **F9** and **f10** keys could be assigned to **Menu** and **User System** keys, and **Alt** to the **Select** key. If we could only gain access to the mountain of first class PC/XT software whose developers will never be able to justify special versions for the non-compatible HP laptops!
—Upgrade your most useful ROM-based software to the LATEST IMPROVED VERSIONS—Word/3.0 and Lotus 1-2-3/2.01 especially. When everyone else in the PC/XT/AT universe now has access to these important upgrades, why shouldn't 'top dollar' Portable Plus owners have access to them, too?
—Come down out of the stratosphere on RAM-Drawer RAM chip pricing.
—Make the superb integrated package ENABLE available to Portable Plus owners in ROM. As many software reviewers have said, ENABLE is in a class by itself among integrated programs. Compared to the other 'leaders' (Symphony, Framework, and the Smart System), ENABLE is not only superior to any of them but also the only one that would comfortably fit in the Plus's RAM and electronic disk.
—Increase the 80C86 clock speed to an up-to-date 8MHz.

As a long-term HP shareholder and HP customer, I really appreciate HP's dedication to engineering excellence and manufacturing quality. My thanks to all of you at HP for bringing us superior products at the leading edge of technology.
cc: Hal Goldstein, Editor, *The Portable Paper*
Rodman A. Sharp, Ph.D., Sharp Associates, Santa Fe, NM

Hello, From Saudi Arabia

Greetings from the land of the burning desert, where wine and women are lacking!

I would like to inform you that I have received my five copies of *The Portable Paper* and am thrilled with what I have discovered about my Portable Plus. Here in Arabia, information concerning the Portable is hard to come by...even HP is a bit slow when it comes to this micro.

Enclosed please find my subscription renewal for another two years. I hope that I'll be able to last in the Kingdom for that long! I notice that you are supplying a subscriber's disk if the subscription is renewed by the 30th of September; as long as the camels cross the desert in record time, this renewal should reach you by then.
Ken Preston, Saudi Arabia

The Importance of Backup

In May of this year, we sustained a devastating fire that destroyed our warehouse and office complex. The office contained records...dating from April 1930...

Our computer system includes a Zenith Z-100 CPU which contained approximately 2.75 Megabytes of program and 4 Megabytes of data files. Its primary use is inventory control. It had been my practice to backup about three times weekly. This had been accomplished and completed at 4PM, May 7, 1985. The fire ignited at 10PM that date.

Inasmuch as all inventory was a total loss, as well as office and equipment, we were without any record of what we no longer had. It had been the practice to carry the backup floppies off-site, which fortunately had been done. As soon as the CPU could be replaced, the hard disk initialized, and the backup files restored, we were in a position to offer the

insurance carrier hard- copy evidence of what had been the extent of the inventory loss.

In a lighter vein I have a modest procedure to pass along to other readers. It may be presumptuous to assume that none of them has discovered this, but frequently the simplest solutions are the least obvious.

My suggestion relates to a clogged ThinkJet cartridge. I have discovered that, after removing the cartridge from the printer, straightening a paper clip and gently inserting it into the small orifice at the rear of the cartridge, exerting very slight pressure against the bladder within until ink oozes from the jets, restores the cartridge to its normal function. Wipe any excess ink from the jets before reinstalling the cartridge into its carrier.
Bob Glass, Indianapolis

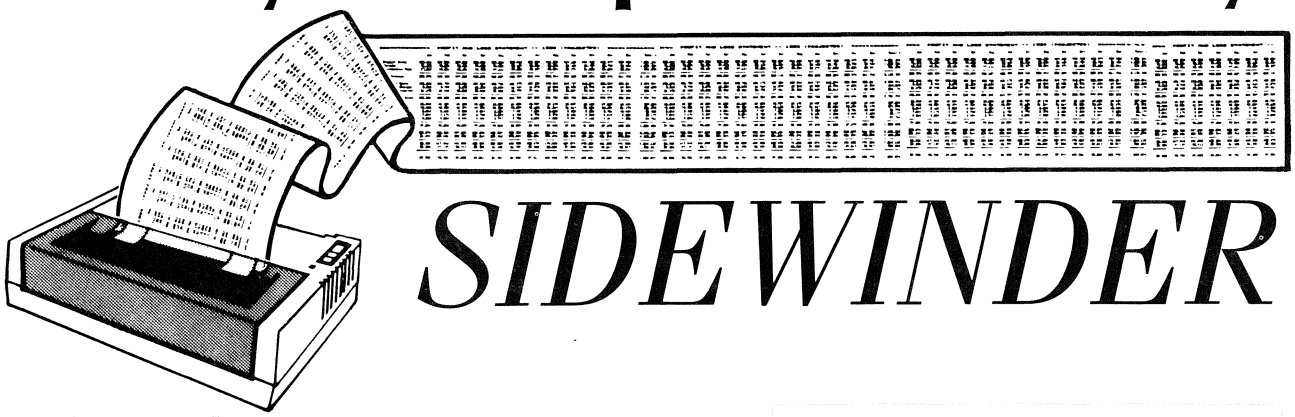
X-ray's And The Portable

I have been using the HP110 for over two years now. The portability of the unit is absolutely essential to my business. We are manufacturers' representative servicing the electrical industry.

Recently I began using commercial air travel regularly. It seemed that about every two to three times my HP110 went through the security x-ray unit I had an electronic disk failure. Just when I would get on the plane with a weeks full of work, the HP110 would prompt **Memory Lost Press to Reformat**.

My question is, does passing the 110 through the security x-ray have anything to do with this memory problem?
Jeffrey T. Dawson, Tampa
[Ed - Does anyone know?]

No more cutting and pasting- Now you can print it sideways!



SIDEWINDER

At last! Sideways printing for the HP Portable, Portable PLUS, and ThinkJet!

(And the HP150, Vectra, IBM PC, MS-DOS computers, and most HP graphics printers.)

It's called SideWinder, and it's perfect for Lotus 1-2-3 print files, MemoMaker files, or any other text (ASCII) file that's too wide for a normal page.

Just type in the file name, and SideWinder does the rest, printing up to 53*rows *sideways* - for as long as your paper supply lasts. You'll never need to cut and paste again!

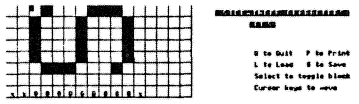
SideWinder's high-quality graphics characters are indistinguishable from ordinary characters, and SideWinder prints just as fast as your ThinkJet can.

In addition, a built-in mini text editor lets you get inside your print files and easily create double-width characters and underlines.

SideWinder $69.95
$59.95 for Portable Paper subscribers

OPTIONAL EXTRAS: Southern Software of New Orleans, creators of SideWinder, have also created two companion utilities that work only on The HP Portables:

SideChar lets you create your own sideways characters.



Simply fill in a grid on your Portable to modify SideWinder's built-in characters. . . create italics. . . Hebrew letters. . . integral signs. . . whatever sideways characters you wish.

Sketch & Print lets you make line drawings on your screen using the cursor and function keys.

It's a lot like those Etch/Sketch toys you played with as a child. (Actually, it's even better because you can draw not just horizontal and vertical lines, but also *diagonals* with a single key.) Sketch & Print also lets you print - and save - anything you draw on the screen.

$10 for both utilities when purchased with SideWinder

Order form and guarantee are on inside back cover or send check or credit card number to Personalized Software, PO Box 869, Fairfield IA 52556 (515) 472-6330.

SideWinder 1.01 owners may upgrade to current version 2.01, which supports 8 chars/inch, by sending Personalized Software $7.50 or by mailing a self-addressed $.39 stamped envelope and the SideWinder master disk.

*105 rows for QuietJet Printer

Lotus and 1-2-3 are registered trademarks of Lotus Development Corp.

110% Making more of your HP110

by Hal Goldstein

Interex

For those of you not familiar with the world of HP computers, Interex is the international Hewlett Packard users group. In theory it represents all users of HP computers. In practice it is a forum for the HP3000 and HP1000 world of multiuser computer systems.

Every year Interex hosts a show for the HP3000 and series 100 microcomputers. Very few of the 300 vendors at the Detroit September, 1986, show had anything to do with microcomputers. In fact, we were the only representatives of the HP Portable besides Hewlett-Packard itself. Most of the attendees represented Fortune 500 companies.

I found this first experience having a booth in a show both exhilarating and exhausting. My wife and I were on our feet eight hours for three straight days, constantly meeting new people and trying to get their attention. At times I felt like a toned-down carnival hawker, calling out to passers-by 'Excuse me, do you or your company use HP Portables?'

I made some interesting discoveries. First of all, despite the fact that many participants were Portable users and represented companies with as many as 200 Portables, almost no one had heard of *The Portable Paper*. Secondly, I was amazed to find out how many Portables and Portable Plus's were used simply as terminals to communicate with the company HP3000. Thirdly, although it was no surprise to find people having troubles with the HP110 Terminal package, I found Portable Plus Reflection 1 users also experiencing a great many difficulties.

I left my wife holding the fort for two conference sessions. In the first, HP's Rick Baker, Terry Tallis, and Buzz Walker led a discussion on 'sales force automation', the latest buzz word. The discussion focussed on the different aspects of the sales process and how HP Portables can contribute to a more productive operation. Terry Tallis promised he would send me notes of this most interesting session. In the session Terry also reported some interesting initial findings on actual research HP has been conducting with its own sales force. HP will be attempting to show their major accounts the wisdom of equipping their sales forces with Portable Plus's by their own example.

One of the things I always respected about HP when I worked for them is that they expected its employees to use HP equipment. That way HP employees could enjoy the same advantages and limitations of HP hardware and software as their customers. This policy in the lab environment inspired many new products.

In keeping with this philosophy, HP reasons that if it really believes in the Portable Plus as a productivity tool for a sale force, then the best way to show the customer is by its own example. Therefore, HP is currently engaging in project to equip over 1000 of its sales force with Portable Plus's.

Only good for all Portable users can come from this project. The HP salesperson wants a tool that will help him do his job simply and directly. The last thing he wants is for his Portable to embarrass him in front of a client or waste his valuable time. Therefore, more software and techniques should become available to make The Portables easier to use: when the sales force discovers limitations, it will be able to provide direct and vocal feedback to the factory at Corvallis right from the field. Real world feedback can only improve enhancements and future Portable offerings.

Another benefit that will come out of the project will be the knowledge gained from the methodical research performed on the use of Portables by the HP sales force. This research will attempt to uncover which aspects of the sales process are most enhanced by the use of Portables. Terry Tallis promised to keep me up to date on the findings, and we will be running future *The Portable Paper* articles on using The Portable in the selling environment.

The other interesting conference I attended was led by HP engineer and CompuServe forum Sysop Bill Crow. Bill has apparently developed quite a reputation for his presentations: 100's of attendees filled the meeting room. Bill's most entertaining and informative talk concerned information services and public bulletin boards, and CompuServe in particular. I will try to share some of that knowledge in future issues of *The Portable Paper*.

Finally, the show gave me an opportunity to talk with a number of subscribers, many of whom are now new subscribers. I gathered information for several interesting articles, and I think I found some excellent prospects for contributors. Next year's September 1987 conference will be in Las Vegas, and we have already reserved a booth. I hope to see more of you there.

PACK is Back

The **pack** utility is fixed. **pack** is built into the Portable Plus and available in the public domain for the HP110. As we discuss in *The Portable Paper* issue 2, the original version has a serious bug if you create subdirectories on your Edisc. The bug has been fixed in the latest releases of the Plus and in disk form. If your version of PACK has 792 bytes and is dated 1985, it has the bug. The 896 byte version with the 1986 date works correctly. (To check bytes and date if you have the Plus, do a **dir b:\bin** and **Return** from DOS, and you'll see **pack.com** in the listing.)

You can get the corrected version from us in several ways. If you ordered *DOS Tools* or *The Portable Paper On Disk - 1987* from us, you'll find **pack** on the disk. Alternatively, if you send us a formatted disk with a self-addressed stamped envelope, we'll be happy to put **pack** on the disk at no charge. Finally, if you order the *Time Manager* disk from us for $7.50, you'll find the corrected **pack** on it.

HP Responds To HP110 Users

I received many calls and letters in response to Bill Cross's *The Portable Paper* issue 6, page 5 call for HP110 owners to unite for an upgrade. I sent three of the most eloquent letters - from John G. Berg of Philadelphia, R.K. Gladden of Valley Forge, PA, and Robert H. Whitman of Berkeley - on to Corvallis for a response.

Respond they did— with bad news:

'The HP Portable computer division has investigated the possibility of upgrading the Portable HP personal computer to include more memory and the addition of an enhanced display. The decision to not provide an upgrade has been based on the following:

'To include more memory would require a total redesign of the machine. The cost of this would be approximately the list price of The Portable Plus personal computer. The new enhanced screen is not available in a 16-line version from our vendors. Again, to redesign the box and software to accommodate the 25-line enhanced display would approximately match the list price of The Portable Plus.'

In other words, unless some third party comes up with a brilliant solution no upgrade is possible.

When HP first came out with The Portable, it was designed to be a self- sufficient box with no hooks for upgrade - sort of like the original Apple MacIntosh. The thinking was that with a powerful spreadsheet (Lotus), an easy- to-use word processor (MemoMaker), a 300 baud modem, terminal software, and enough Memory/Edisc RAM for space for most applications, 95% of most Portable user's needs would be satisfied.

In addition, at the time the HP110 first came out, the state-of-the-art in screen technology was such that a 25-line LCD display was unreadable.

I think most HP110 users would agree that it is a remarkably self-sufficient box. However, we all want more—in this case more memory, more screen, more software, more telecommunication speed, more flexibility.

In order to take advantage of new technologies that made possible the 25-line screen, ROM and RAM drawers, and 1200-baud modem on a chip, Corvallis engineers virtually had to start over when designing The Portable Plus. Although the outsides of The Portable and Portable Plus look the same, the insides of the two machines are completely different.

Therefore, because of original design decisions in creating the HP110 which were based on older technologies, upgrading the HP110 would be like rebuilding the machine. The cost of redesigning, reburning, and reinserting the ROMS are prohibitive.

The once-existing possibility for an HP110 upgrade had to do with the new green screen. The problem HP has is that HP purchases its screens from an outside vendor. No vendor will build a 16-line screen since only 25-line screens are in demand.

When I was an HP software engineer, I found fellow employees incredibly concerned about the customer and his ability to upgrade. From my dealings with Corvallis I have no doubt they made a thorough investigation as to the possibilities of upgrading the HP110.

Where I think HP fell down (this was also my experience when working for HP) was in not informing its incredibly loyal customers of their efforts and the details of why upgrading was not feasible. Perhaps a gesture such as a trade-in policy, so that original HP110 owners could upgrade to a Plus without having to spend the time and expense trying to sell their original machine, would be appropriate.

From the point of view of HP110 users, the fact remains they bought a machine, albeit a new technology, that is now obsolete. Perhaps that is the fate of pioneers. Given the advances in technology, all our current computers will be obsolete in 5 years. The question that the HP110 user might ask himself is, was it worth it? My guess is the answer would be the same of the original owners of the several hundred dollar simple HP calculators - yes.

DOS Tools Done

By the time you receive this issue, those of you who have already ordered *Portable Utilities Disk Volume 1: DOS Tools* should have received your disk and manual or will get it within the next two weeks.

What an effort! Last issue I spoke of Gary Goodman's great work sifting through files of public domain software, finding the good stuff that works on The Portables. Gary also reworked some of the documentation, making it more accurate and clear.

We at Personalized Software edited, revised, rewrote, and added examples to that documentation and indexed the whole thing - creating a 65-page printed manual in the process. We also contacted the authors of the programs whenever possible to gain permission to use their copyrighted material. There are 55 programs on the disk, and it was like creating 55 separate products for the marketplace.

A few of the programs we listed last issue are not included on the disk because of copyright conflicts. However, we added several others for the Portables. In addition, we included two for the HP150 only: a RAM disk program and an IBM PC emulator. Also, we added a great file manager in the spirit of PAM but much better which runs on the IBM PC and compatibles only. (The other 52 programs all work on both the Portable and the Portable Plus.)

The manual still is not perfect. Since the different programs are written and documented by different authors, the documentation is not as consistent as I would have liked - although we made great strides in that direction. The programs were written by strong programmers, and much of the original documentation assumed that the audience was as familiar with computer vernacular as the programmer. Where possible, we toned that down and translated to English. We also added many examples, since I have always found examples to be the best way to learn something.

With more time, I think we could have made the manual even more readable. However, I think users from novice through sophisticated will find the disk extremely useful. A familiarity (or at least lack of fear) of DOS does help.

DISK HIGHLIGHTS

Highlights of the disk include **pack, arc512, copynew, installp, prnconf, trim,** and **vdl**. **pack** is the revised **pack** program without the subdirectory bug. It is the version that comes with the new (ROM B) Portable Plus. **Arc512** allows you to archive a group of files into a single, much more compact file for backup purposes or data transmission. This is the only item of shareware on the disk; if you use the program, you are requested to send $35 to the program's authors. **Installp** is HP's automatic install utility. It

Erased your files? Get them back with The Norton Utilities!

"THE NORTON UTILITIES are among the most helpful utilities I've run across. I use them myself every day, and in my opinion, they're a must. Here's why."

By Hal Goldstein, Publisher
The Portable Paper

It happens to the best of us. One slip of a finger and a whole week's worth of text or data is past history. *But not if you have THE NORTON UTILITIES*!

Just type **qu** (for quick unerase), give the first letter of the name of the file you erased, and *the file gets restored.* Miraculous as it sounds, in many cases that's all there is to it!

How can a deleted file get unerased?

Simple. The file isn't really deleted in the first place. When you delete a file, all that actually gets erased is part of the file's directory entry. (That's why it only takes an instant to delete an entire file.) Without a directory entry, DOS can't find the file, but THE NORTON UTILITIES can.

Now, what about those cases where you can't possibly recover a file because you've already partially overwritten it with other files? Surely THE NORTON UTILITIES can't help you then?

Wrong—they can! THE NORTON UTILITIES won't recover the entire file, of course, but they *can* help you restore the portions of the file that still remain on the disk.

It's done with a powerful utility called **nu** that lets you display, change, and capture to a file any information on any disk. In complex cases you may need to do some detective work, but **nu** will help you find whatever remains on the disk, thereby saving you from countless hours of retyping lost data.

In my opinion, *the ability to recover lost files alone makes THE NORTON UTILITIES well worth the price.* But there's even more to the pachage: THE NORTON UTILITIES are also an excellent *disk management system*. Here are some examples of what you can do:

RUNS ON:	
HP Portable	●
Portable Plus	●
HP150	●
IBM PC / HP Vectra	●

Let's say you want to sort directories and files physically on disk—either by name, extension, size, date, time, or by any combination of these. Just use the **ds** (disk sort) command. I use this one to sort my electronic disk files by size all the time. Then when I display the directory, the larger files come at the end of the list, and I can see at a glance which ones to move elsewhere to free up any needed amount of disk space.

Or let's say you remember putting the phrase "a penny saved is a penny earned" into a text file on your electronic, floppy, or hard disk but you can't remember which file it was—or even which directory. How to find it? *No problem.* Just type **ts** (for text search), specify the phrase, and the program will display every occurrence of the phrase, identifying each occurrence by directory and file.

Or let's say you can't remember which subdirectory you put a given file into. Instead of hunting for the file manually, just type **ff** (find file) and specify the name of the file and the directories to search through. The program does the rest.

Other useful features include the **fa** command, which lets you change file attributes (for example, to make erasable files unerasable or vice-versa), and the **fs** command, which tells you the total file size of a group of files (I often use it to find out the total disk space occupied by my Lotus worksheet ".WKS" files or by all my text files from a given project).

Because of their great helpfulness and ease of use, THE NORTON UTILITIES are already a best-seller in the IBM PC market. Personalized Software is authorized to distribute them on 3 1/2″ disk for users of the HP110 Portable, Portable Plus, and HP150. (All it takes is a few keystrokes to customize THE NORTON UTILITIES to your machine; just follow the simple customization instructions included on the disk.)

Also included in our package are the standard 5 1/4″ disk sold by Peter Norton for IBM PCs, and—as a bonus—several public domain utilities we've tested on the Portables. There's also a utility called PC.EXE that allows THE NORTON UTILITIES to run on the HP150.

THE NORTON UTILITIES are a time-saver for you and a life-saver for your data. Use them just once and you'll wonder how you ever did without them. Order your copy at no risk today.

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PC Magazine

"Don't compute without it."
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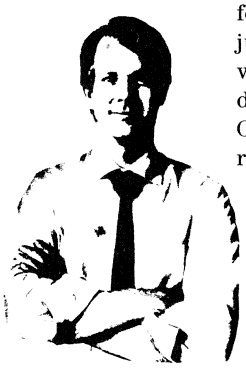
"You'll bless this disk."
Peter McWilliams
(The Personal Computer Book)

Personalized Software is authorized to distribute THE NORTON UTILITIES on 3½″ disk customized for users of the HP110 Portable, Portable Plus, and HP150.



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Personalized Software
P.O. Box 869, Fairfield, IA 52556 515/472-6330

is useful for automating the installation of a program or a group of files onto the electronic disk and as a PAM application.

Prnconf allows your HP-IL ThinkJet printer to emulate an EPSON printer. **Trim** lets you extract specified columns of data from a file - useful for importing data into Lotus. **vdl** provides a more convenient, less dangerous procedure for deleting files than either the DOS **DEL**ete command or PAM's File Manager.

The *DOS Tools* disk creates some competition for ourselves. **Tjeta** and **printit** do quite a lot of what our PrinterTalk program does - making it easier for MemoMaker users to make full use of the ThinkJet. Our Wizard Cliff Looyenga's **cypher** is similar to Private File in that it allows you to encode and decode files for security purposes. Finally, **sdl** mimics my favorite Norton Utility, **ds**. This 2K program lets you get an immediate directory listing of your files sorted by name, extension, size, or date. (However, unlike Data Sort it does not physically do the sort on disk.)

The *DOS Tools* disk is available from *Personalized Software, P.O. Box 869, Fairfield, IA 52556, (515) 472-6330* for $49.95 plus $4 shipping ($39.95 to Portable Paper subscribers). Use the order form in back of this issue.

Buying a New Car with The Portable

In future Portable Papers we will discuss the use of the Portable as a tool for the salesman. The Portable can also be most helpful when making major purchases.

My wife and I were recently in the market for a new car. I did not want to spend a lot of time shopping around; however, I also wanted to get the best possible price. My Portable was a great help from start to finish.

Initially, I entered sticker prices of cars, including options, into Lotus. I also recorded the dealership, salesman's name, phone number, and comments from any visit.

I soon narrowed my choices down to several models. Fortunately, I was able to get the actual dealer costs of the car and options from one salesman. If you cannot get the dealer's cost directly from a salesman, there are a number of methods for obtaining this information. The best is to obtain a current copy of *Edmund's Car Prices*, which lists the dealer costs of all car models and options. This publication can be found in the car section of your local bookstore or magazine stand. Another method is to take a percentage off the sticker price (usually between 9% to 12% and up to 20% on options). You can also refer to such books as *How To Buy A Car* by James R. Ross, St. Martin's Press, NY, $4.95 where percentages are specified depending on the type of car.

I entered both the sticker and wholesale price of the car into Lotus. Let us suppose, for example, the sticker price of a car is $10,000. In addition, I want air conditioning and a fancy radio that have sticker prices of $1000 and $500. Let column A contain the name of the car or options, column B the sticker price, and column C the estimated or actual cost of the car to the dealer. In this case, I assume that the dealer markup is 9% on the car and 12% on the options.

The Lotus spreadsheet looks like this:

Car	Sticker	Wholesale
Car X	$10,000	$9,100
Air Cond.	$1,000	$880
Radio	$500	$440
Total	$11,500	$10,420

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Depending on such factors as availability, how long the car has sat on the lot (the shorter the better - less finance charges), and how much the dealer wants to move the car, you should be able to get the car for between $200 and $750 over the dealer's cost (between $10,620 and $11,170 in the example).

In my case, in the 150-mile radius around the small town where I live, my choices were limited. Therefore, having the various options - sticker and wholesale - listed in my computer was very helpful, especially when it came down to negotiations. I could quickly determine the wholesale price, add $200, and make my offer.

It was during negotiations where I found The Portable most valuable. Having the figures in a Lotus spreadsheet put me in a better position than the salesman in coming up with figures quickly. Tax, extra options, and so forth could be computed quickly.

In addition, with the computer always available to me, I felt the intimidation and control factors normally in his favor on his turf shifted quite a bit. The Portable itself gave me an air of sophistication and knowing what I was doing that helped get to the lowest price more quickly. It also gave confidence having a familiar tool in an unfamiliar environment. At any moment I could turn and work on my Portable, thus taking control of the situation.

I found it also useful to play 'what if' with the spreadsheet while the salesman checked with his manager about my offer. According to my reading, normally this is an excellent intimidating tactic for the salesman: he leaves you alone for 15 minutes to anxiously sit and think about

(continued on page 34)

A Drive—Application Software in RAM

Time Manager A

Getting More Than 100 Time Manager Names and Addresses

A number of you have written in with workarounds to the Time Manager limit on the size of the file containing names and addresses. Here is the solution offered by Joel Nossoff of Altadena, CA.

Joel writes: 'Have you ever been frustrated with the limit of 100 entries in the Time Manager **Name & Address** file? Or, perhaps, you would like to keep your business addresses separate from your personal files. Here is a handy technique for keeping two distinct lists, each with a 100 entry capacity. It was given to me by Ed Grimes, head of HP Customer Education in Los Angeles.' (The idea can be extended to create as many 100-name files as you require.)

In MemoMaker create a new file called **switch.bat** and type the following, with the first character of each line in column 1:

```
if exist tml.nam goto tml
:tm2
rename tm.nam tml.nam
rename tm2.nam tm.nam
goto exit
:tml
rename tm.nam tm2.nam
rename tml.nam tm.nam
:exit
```

After saving this file as **switch.bat**, exit MemoMaker. Subsequently, any time you are in Time Manager and you want to switch back and forth between your 'first' and 'second' **Name & Address** file, simply type **switch** from the Time Manager Calendar screen. After typing **switch**, you will be asked to hit 'any key', to return to Time Manager. Do so and go to **Name & Address**. You will see that the address lists have been switched.

HOW IT WORKS

Actually, the concept is quite simple if you diagram the process. Unfortunately, it is one of those ideas not well suited to words. This technique for switching address files is a variation of a classic procedure first-year computer science students learn.

switch.bat is a batch file, that is, typing **switch** from Time Manager causes the DOS commands within **switch.bat** to be executed. Those commands within **switch.bat** rename the two files holding the two address lists in a way that Time Manager never knows what's happening. Time Manager assumes the file **tm.nam** is its **Name & Address** file. That's all it cares about— that there is a file named **tm.nam**.

As Joel Nossoff states: 'It's a little like the old game of lusical Chairs, except with one extra chair, instead of one ss.' The **switch** batch file provides a temporary filename r the **Name & Address** file about to become inactive. It renames the formally inactive **Name & Address** file **tm.nam**.

The reason two temporary file names are required is because two files cannot just trade names. For example, suppose the two files **tm.nam** and **tml.nam** held the two address lists. Now suppose you want Time Manager to access the names and addresses in **tml.nam**. Try to figure out how to make **tm.nam** turn into **tml.nam** and **tml.nam** into **tm.nam** without creating a new temporary file. You can't do it.

DOS From Time Manager

You can issue any DOS command from Time Manager: just type the command from the Calendar screen. This means you never have to go back to PAM except to change configuration settings. For example, if you want to use Lotus 1-2-3 from within Time Manager, just type **123** from the main Time Manager Calendar screen. The one limitation is that you tie up extra internal memory when you call programs from Time Manager rather than PAM, since Time Manager stays resident.

HP110 users can type **memomakr**, **123**, or **terminal** from the Time Manager Calendar to invoke MemoMaker, Lotus 1-2-3, or Terminal.

Plus users must do a little exploring to see what command calls their specific ROM application. From DOS first go to drive B type typing the command **b:**. Then issue a **dir**. Each subdirectory in the listing stands for one of your ROM based applications. Change to the directory containing the application you are interested in. (For example, you could type **cd msword**.) Then type **type pam.mnu**. The second line of the file is the DOS command you are looking for. (In the case of MSWord it is **word /n**.)

Using Time Manager With Pulse Dialing Exchanges

Nigel Ball of Australia writes about techniques to get Time Manager on the original HP110 to use pulse rather than tone dialing for older phone equipment. A variation of the technique will probably work on the Plus if you copy your **tm.com** file from **b:\memo-tm** to the A drive and run a copy of the patched program from the A drive. The **debug** program that Nigel mentions is built into the Plus. HP110 users can find the **debug** program on most any DOS machine's operating system disk.

Nigel writes that there are two alternatives for pulse dialing: 'If you are using the HP110's internal modem the only choice is to put a capital **P** as the first character of the phone number. Time Manager will then dial using pulses. In general this will not cause a problem if you dial the number through a tone dial exchange as most still accept the pulse dialing.

'The alternative relates to the use of an external autodial modem. (Some of us don't have any choice as HP shipped units without modem to Australia after the initial shipment.) In this case the **P** in the phone number field will still work. However, it is possible to patch Time Manager so that it always pulse dials.

'To make the patched version of Time Manager, you will need the MS **debug** program and a copy of **tm.com** on drive A. From DOS type **rename tm.com tm.xxx**. Then type **debug**. **debug** will respond with a version number and a - prompt.

'Type **scs:100 ffff 41 54 44** after the -. **debug** should respond with something like **xxxx:8665** where **xxxx** is a hex number that may vary. Then type the following three lines (without the -).

-e 8665 41 54 44 50
-w
-q

'Now from DOS **rename tm.xxx tm.com**. This process replaces the normal stored Hayes (or compatible) modem dialing prefix **ATDT** with **ATDP**, so that pulse dialing is always assumed when using an external modem.'

Turbo PASCAL A

Attention Pascal Programmers

Cliff Looyenga, our Wizard, has developed a number of excellent routines for Pascal programmers at a most reasonable price. He calls the package PCVIEW. PCVIEW is for the Turbo Pascal programmer who wishes to use forms in his application for either displaying or inputting data. With PCVIEW the programmer can create these forms so they automatically work on the HP110, Portable Plus, HP150 and the IBM PC. The PCVIEW system consists of a program to create and modify forms, two sample demo programs, and all the Pascal source code necessary to create forms and to display the forms on the four computers. The 60-page manual is well written and indexed and contains a clear explanation of how to call the routines and what each routine does.

You can order PCVIEW directly by sending $24.95 plus $2 shipping to *Advance Solutions, P.O. Box 567, Veradale, WA 99037, (505) 928-4147*. Mastercard and Visa accepted. If you would prefer, you can order the product from us, but you'll have to add an extra $10. Cliff really wants to keep the price down - I think you'll find it good investment.

Running Your HP Portable Version of Turbo On The PC

By Ed Keefe

To new owners of Turbo Pascal and veteran hackers as well . . . Did you know that your version of Turbo Pascal can run on the IBM-PC/XT as well as on the HP110? Move your copy of the Turbo Pascal files to the IBM PC using the HP-IL interface card or via the data communications port. The drive from which you start your system should contain a file named **config.sys**. This file must include the line **device = ansi.sys**. The boot disk must also contain file **ansi.sys**, which can be found on your system DOS disk.

Restart your system. Now issue the command **tinst**. This will lead you into the installation procedure for Turbo Pascal. Go to the **S)creen** option in the **tinst** menu. There, install the program so that it will run on a TI-Professional computer. (Would you believe: a piece of software for the HP 100 series that runs on an IBM PC and behaves like a TI computer!?)

What you will have is a working copy of Turbo that will let you run programs on the IBM PC that you develop on the HP110. What you will not have are all the IBM PC goodies that come with Turbo for the PC: color, sound, turtle graphics, and windows. But you will be able to write Pascal code that uses the HP escape codes that works correctly on the IBM PC. MicroCalc, which comes with Turbo Pascal, should work on the PC under this strategy. (Please keep in mind Borland's 'Just Like A Book' licensing agreement.)

Getting Started In Turbo Pascal

By Ed Keefe

One of the most disconcerting aspects of learning a new programming language such as Turbo Pascal is not knowing what a typical program looks like. I suppose one way to see some actual programs is to look at samples in textbooks, but I've encountered two problems with this approach.

First, I had to buy several different books. Second, most of the sample programs were written in a different version of Pascal. Many of these programs would not work in the Turbo environment without extensive modifications. The simplest modification involved adapting the programs for a 16-line HP110 display. The more difficult modifications involved commands such as 'get' and 'put' which are not implemented in Turbo Pascal.

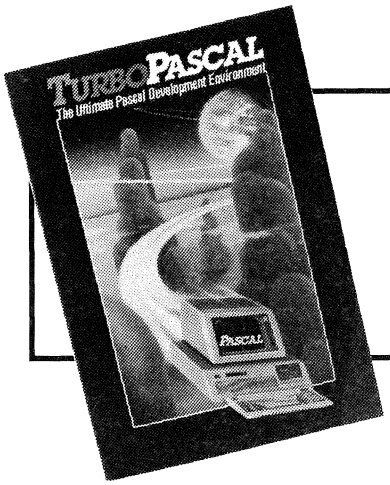
For those of you who are relatively new to Turbo Pascal programming, help is on the way. Available from Personalized Software is a collection of Turbo Pascal programs and procedures that will get you over this hurdle of inexperience.

Personalized Software is producing a double-sided disk containing 50 samples of Turbo Pascal programs. The programs range in length from ten lines of code up to several hundred lines. ALL of the code is included on the disk so you need not key it in. Most of the programs are ready to be **Loaded**, **Compiled**, and **Run**. Some of the programs have even been compiled for you so you don't need Turbo Pascal in your computer to run them.

The level of difficulty of the programs varies from simple to advanced, with the majority of programs skewed toward the simple end of the continuum. Thus, Pascal programmers from beginners to experts will find examples on the disk that they can learn from.

All of the programs have been tested on the HP110 Portable and they work! (Almost all the programs will also work on the Portable Plus.) However many of the programs do not incorporate error-trapping. As a result, they may produce I/O errors or run-time errors if they are given inappropriate input data. Another way of saying this is to

Turbo Pascal Customized To Your HP Portable or Portable Plus at No Extra Charge



"Turbo Pascal is clearly the Portable and Portable Plus programming language of choice."

—Hal Goldstein, Publisher, *The Portable Paper*

Turbo Pascal is superior in terms of:
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- programmer's environment
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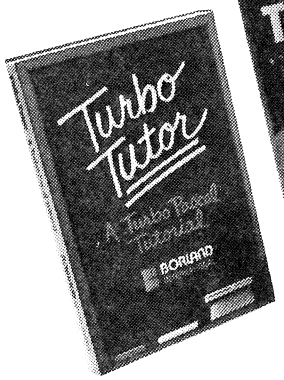
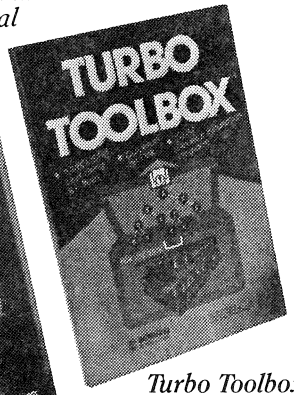
Turbo Pascal Starter Kit: Includes Turbo Pascal, Turbo Tutor, and Pascal Programs for Portables.

Other Borland Turbo Pascal products





Turbo Toolbox: Disk includes routines that create data/base file-management system.

Turbo Tutor: Disk and manual for learning Turbo Pascal. Includes many features for experienced users.

TURBO PASCAL™	Retail	*Portable Paper* subscribers
Turbo Pascal	$99.95	$89.95
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Turbo Toolbox	$69.95	$62.95
Pascal programs for Portables	$49.95	$44.95*
Starter Kit	$179.95	$149.95

*$39.95 for Portable Paper subscribers if you purchase any Turbo product from Personalized Software.

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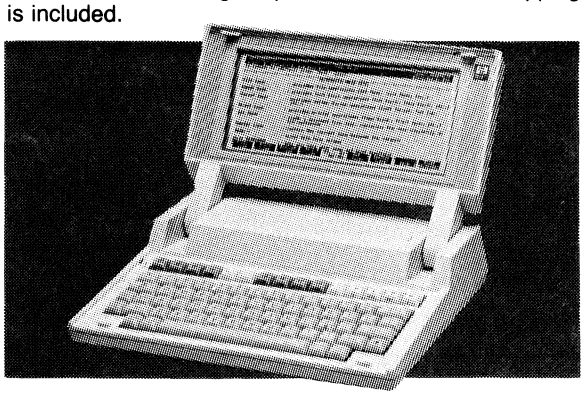

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admit that many of the programs are 'fragile'. (You can exercise your budding programming skills to make them more rugged!) As far as can be determined, none of the programs will cause the Portables to crash or lock up. That's something in itself!

By way of background information, most of the programs were designed to illustrate certain aspects of Turbo Pascal for a college course in 'Application Programming in Business'. For that reason you will find that most of the programs are oriented toward business applications rather than math or scientific applications.

There are four major categories of files on the disk:
1. There are files with the extension **.com**. These are pre-compiled, ready-to-run Pascal programs for which the source code is included as well.
2. There are files with the extension **.pas**. These are ASCII files written in the Pascal language. When input into Turbo Pascal, what comes out are compiled, runnable **.com** program files. Each **.pas** file on the disk is briefly described later in this article.
3. Each of the **.pas** files has a corresponding file with the extension **.doc** which contains a small amount of documentation. The documentation will, at the very least, tell you how to get the **.pas** file to run as a program. The documentation for some of the files is more extensive. It may describe what input is expected and what you should expect for output. The documentation may also call attention to certain features of the program.
4. There also are files which end with the extension **.inc**. These are **INC**lude files: Pascal procedures that are used by other Pascal programs on the disk.

All told, there are over 210,000 bytes of code to examine, play with, and learn from. Although the programs work, none of them are finished products. How well they finally work will be a measure of your growing expertise.

Of course, you may use all or part of any program in the programs you write. You will not be violating any copyright laws nor will you have to pay any royalties.

Here is a list of the program files on the disk, along with a few words about what each one is designed to do. Each program is also rated as SIMPLE, INTERMEDIATE, or ADVANCED. These assessments refer to the level of difficulty of the program. The assessments are the judgment call of one person and are only meant as a relative indicator. Beginners might want to look at the SIMPLE programs first and work their way up.

Bayes.pas is a program from probability theory. It incorporates prior and conditional probabilities to produce a 'payoff matrix'. This program has been adapted from *Practical Pascal Programs* by G. Davidson, Osborne/McGraw-Hill, 1984. INTERMEDIATE.

Boxes.pas is a modification of the program 'Box' on page 132 of the Turbo Reference Manual, v.3.0. It is an example of 'text graphics' on the Portables. SIMPLE.

Brkevn.pas is a program to compute the linear break-even point of producing an item or service. The idea for the program comes from *Elements Of Pascal*, Sherman and Holder, Wiley, 1984. SIMPLE.

Cachel.pas: This short program is an attempt to simulate disk 'caching' to speed up the printing of lengthy documents from the 9114 disk drive. INTERMEDIATE (uses file I/O).

Chartime.pas: Ever wonder how fast your typing speed is on your Portable? This program will give you the answer. SIMPLE.

Cmult.pas will let you multiply two complex numbers together. SIMPLE.

Compare.pas is useful in program development. It compares the contents of two text files (e.g., source code files such as **main.pas** and **main.bak**) to determine what changes you may have made from one version of the program to the next. ADVANCED.

Copy.pas will allow you to copy a file from the electronic disk to the external disk or vice-versa without leaving the Turbo editor. SIMPLE.

Count.pas produces a frequency count of all the characters in any text file. Its real purpose is to demonstrate DOS's redirection of input and output with the use of the **< and >** symbols. INTERMEDIATE.

Customer.pas is a mailing list program with the added features that you can specify how many copies of a mailing you want to send to a customer AND on which months of the year. INTERMEDIATE (uses sets).

Draw.pas is Cliff Looyenga's program that will let you use the **grfll0.inc** files to change the Portable's display into an 'etch/sketch' type of machine. ADVANCED (due to minimal documentation).
EMUL 3270 is one way to redefine the Portable's keyboard. In this case the keyboard emulates that of an IBM 3270 data entry terminal. With some modifications you can make the keyboard behave like a Dvorak keyboard. SIMPLE (uses case statements).

Erase.pas will allow you to erase a file from the electronic disk without leaving the Turbo editor. SIMPLE.

Exermenu.pas: Along with a companion program, **menugen.pas**, this program will produce menus from which any option can be chosen simply by moving the cursor - almost like Lotus 123 sliding menus, except that the choices are listed vertically rather than across the top of the screen. Useful in creating menu-driven application programs. INTERMEDIATE.

Fact.pas is a demo program that uses recursive techniques to compute the factorial of a number. SIMPLE.

Fibonaci.pas computes the Fibonacci numbers from 0 up to

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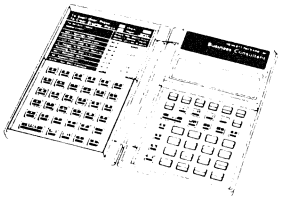

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Turbo Pascal's limit of 10^38 and displays them on the screen. SIMPLE.

Filecopy.pas is a modification of the program on page 115 of the Turbo Reference Manual, v. 3.0. It will let you copy .COM and .EXE files from within a Pascal program. SIMPLE.

Filedump.pas is a program that emulates the 'd' option in the MS-DOS debug utility. It provides a 'hex/ascii' display of the contents of any file on the electronic or external disk. INTERMEDIATE.

Flip.pas reverses the order of the Portable's numeric keys. It is a simpler version of the EMUL3270 program. SIMPLE.

Foxhunds.pas: This is a simple game from the book *Understanding Pascal* by R. F. Skilton, Wm. C. Brown, 1983, adapted for Turbo Pascal. INTERMEDIATE.

Freq.pas: From *The Portable Paper*, vol.1, issue 1, comes this program to change the frequency of the Portable's beeper. ADVANCED (HP110-specific)

Genlmenu.pas is a demo program on how to write a general menu procedure in Turbo Pascal. Not very elegant, but it works. INTERMEDIATE.

Getime.pas: This short program lets you access the computer's clock and use the time in your programs to generate random numbers or set up timing loops. INTERMEDIATE.

Guessgam.pas is the Turbo version of the HIGH-LOW guessing game. SIMPLE.

Hanoi.pas is the recursive solution to the problem of the Tower of Hanoi game. It will print out the complete solution for any number of pegs. SIMPLE.

Listt.com is the compiled, modified version of the Pascal source code listing program. The original source code for the program, along with further documentation, may be found in the book Turbo Tutor, now available from Personalized Software. ADVANCED (long).

Lnpmt.pas is a program that will let you figure the periodic payments to a loan using the compound interest formula. The payments are figured assuming that they are paid at the end of a compounding period. INTERMEDIATE.

Loga.pas: This short program replaces the missing 'log to the base 10' function in Pascal. SIMPLE.

Longmult.pas will let you multiply two 25-digit numbers together and find the product, with up to 50-digit accuracy. The program handles only integer values. INTERMEDIATE.

Ltrhdfil.pas and **ltrhdlst.pas** are two programs that perform the same function, only differently. They both show you how to generate your company's logo on a dot matrix printer. SIMPLE (but requires understanding of dot matrix printers).

Maze.pas generates a random maze on the Portable's display and then solves the maze in 30 seconds or less. INTERMEDIATE.

Menugen.pas is the companion program for **exermenu.pas**. It generates a menu from the directory of files on your disk. INTERMEDIATE.

Miniadv.pas: A very, very simple adventure game. No characters to invent, no weapons to wield, no spells, no curses. Just get yourself into the puzzle, get the treasure, and get out of the puzzle without being eaten by the ogre. For further documentation, see the book *Programming Your Own Adventure Games in Pascal*, by R.C.Vile, Jr., TAB Books 1986. INTERMEDIATE TO ADVANCED (long).

Mybaseco.pas: This program will convert a number in any base to a number in any other base. SIMPLE.

Payoff.pas is another program from Practical Pascal Programs by G. Davidson, Osborne/McGraw Hill, 1984. It has been adapted to run on the Portable under Turbo Pascal. The program lets you assess your reward for choosing one of several options which are all dependent on different 'states of nature'. INTERMEDIATE (due to math involved).

Pert.pas is a Program Evaluation and Review Technique (PERT) program adapted from a program in *Practical Pascal Programs*, by G.Davidson, Osborne/ McGraw-Hill, 1983. INTERMEDIATE.

Petals.pas is a guessing game that will give you hours of frustrating fun. Guess the number of petals around the rose. SIMPLE.

Prodfile.pas combines three separate programs from the Turbo Reference Manual v.3.0. The programs are the three 'Product' programs beginning on pages 99 through 107. Here, they are relegated to the status of procedures and are called by a simple menu. INTERMEDIATE.

Prtmodes.pas: This very tiny program will create a file **emphsizd.prn** which will contain 6 bytes. These six bytes will change a printer to emphasized or bold print mode when the file is accessed by the P.A.M. **Print Files** option contained in the File Manager Menu. SIMPLE.

Pwrl0.pas is a short program used to illustrate two methods of constructing the missing 10^N function in Turbo Pascal. SIMPLE.

Quicklst.pas is a program meant to be run without prior compilation. It was designed to print out a Turbo Pascal program without leaving the editor. SIMPLE.

Rename.pas will allow you to rename a file on the electronic disk or external disk without leaving the Turbo editor. SIMPLE.

Screen.pas is a program that will show you how to design custom input screens for data input. Each field has a fixed length, and the cursor hops from field to field automatically. INTERMEDIATE.

Ted.pas is 'benchmark' program. The program solves the problem: 'What are all possible combinations of numbers from 1 to 20 for which the relationship A^n + B^n = C^n + **D**^n where n is allowed to be 2,3,4?' Better than half a million computations in under 5 minutes. SIMPLE.

Tempconv.pas is a program to convert a given temperature in any one of 5 scales to temperatures in the other four scales. The program is adapted for the Portable with Turbo Pascal from the book *Practical Pascal Programs* by Greg Davidson, Osborne/McGraw-Hill. SIMPLE.

Textstat.pas will give you all kinds of statistics about the number of words and number of sentences that are in text files on a disk. INTERMEDIATE.

Timetest.pas is a simple little program that demonstrates the use of an include file (**c:time.inc**). The **timetest** program itself shows that Turbo Pascal can perform 1000 multiplications of real numbers in about 0.75 seconds (fast enough?) The multiplications are inside a loop. INTERMEDIATE (due to calls to the system).

View.pas: This is an alternative to the **type** and **more** commands from MS-DOS. It will scroll the contents of a text file on the screen and then signal with More to get the next screen. INTERMEDIATE.

Xrfact.pas stands for 'eXtended Range Factorial'. The program will, for example, find 5000! = 4.22857783 * 10^16325 in about 25 seconds. INTERMEDIATE.

Xrmult.pas: This program will let you find the product of two numbers when the product is greater than 10^38, the normal dynamic range of real values in Turbo Pascal. INTERMEDIATE.

In closing, let me say that I wish that I had such a compilation of programs when I first started learning Pascal several years ago! I hope the programs on this disk will prove useful in learning more about Turbo Pascal, and that they will save you a lot of time, money, and effort in your quest to make your Portable even more useful.

If you run into trouble using any of the programs on the disk, please feel free to write to the 'compiler' of the collection: *Ed Keefe, c/o Fastaid Co., 314 S.W. Ankeny, IA 50021.* I answer questions promptly, usually within one or two days, but I am not always available for phone calls due to an exceptionally heavy teaching load.

[Ed Keefe collected and tested most of these programs with contributions from the Wizard, Cliff Looyenga. In addition, Cliff supplied several additional advanced routines not mentioned in the article, including one which makes the ThinkJet behave like an Epson graphics printer.

Also, Paul Grimmer, author of SideWinder, the sideways printing program for HP machines, has added some other routines and modified some of Cliff's.

Pascal Programs for the Portables is available from Personalized Software for $49.95. If you subscribe to The Portable Paper *the price is $44.95. If you subscribe and have bought any Turbo Pascal product from us, you cost is $39.95. Subscribers can purchase a 'Pascal Starter Kit' including these programs, Turbo Pascal and Turbo Tutor for $149.95. You may use the order form in back of the issue or contact* Personalized Software, PO Box 869, Fairfield, IA 52556, (515) 472-6330.]

COMDEX - New Products For Portable Users

by Hal Goldstein

My wife Rita and I attended COMDEX in Las Vegas last month looking for products that can be used with the Portables. For those of you not familiar with the microcomputer subculture, Fall COMDEX is THE trade show of the year. This year, because of the new 80386 (powerful, fast) computers, desk top publishing, and the new laptop computers, the 80,000-plus audience crowding to view 1200 exhibits seemed especially excited.

As I traversed the maze of booths, I flashed back to my travels overseas when I would get lost in the bazaars of Morocco or Arab Jerusalem. The similarities were striking: small booths, easy to get lost, everyone vying for your attention, intense pride in workmanship. The differences, of course, were just as striking: the earthy smell of the bazaar vs. the ultra-clean non-smell of COMDEX, multicolored hand-crafted items vs modern electronic black and silver boxes, the ancient city of Jerusalem vs the flashing lights of Las Vegas, the many-century life time of the ancient marketplaces vs the one week life span of COMDEX. It was an exhilarating experience.

In this modern-day bazaar I found a myriad of products that are of interest for Portable users. A brief description of each product is given below, along with pricing and ordering information. If you are interested in any item, you can purchase it from the manufacturer, or we would be happy to order it for you and put it on 3.5' disk if applicable. As you'll see below, *Portable Paper* subscribers receive a discount off the retail price when ordering through us.

If you would like to order from us, use the blank lines in the order form in back of this issue. If you require more

specific information about a product, please contact the manufacturer - we don't know much more than what you will read below. Some of the products will be reviewed in future issues of *The Portable Paper*.

101 MACROS FOR LOTUS 1-2-3

I talked with the very personable author of this program, Michael Lunsford, at COMDEX. He sells versions on 3.5 inch disk - HP format. These collections of macros are useful - and also are excellent learning tools - for Lotus novices and experts alike. Novices can use the clear, well-written manual and the 101 Macros disk to learn about macros and put them to use right away. Power users will find a number of these macros valuable and will pick up useful techniques by studying them.

The macros I looked at worked fine on both the HP110 and Portable Plus. Some of Michael's files containing and describing the macros do assume a full Lotus screen and the IBM PC line-drawing character set. However, sixteen-line HP110 Lotus users will have little difficulty traversing the screens. Also, the aesthetics of the HP ROMAN8 characters on the Lotus screen rather than line drawing IBM PC character set shouldn't bother any Portable user too much.

Macros include: recalculating ranges, double spacing spreadsheet prior to printout, hiding notes next to data cells, addressing form letters, and printing labels automatically. Other macros let you put @TODAY in words, judge column widths of Print Range, and be more flexible as to where you end up when doing a Copy. There are over 90 additional macros.

The cost of the product is $49.95 from *Macropac International, 19855 Stevens Blvd, Suite 168, Cupertino, CA 95014, 800-227-2400.* The Portable Paper *subscribers pay only $44.95 and can order* from *Personalized Software, PO Box 869, Fairfield, IA 52556, (515) 472-6330.*

READY TO RUN ACCOUNTING

I also talked with Steven Manus, president of Manusoft and author of several Lotus 1-2-3 templates: Ready to Run General Ledger, Ready To Run Accounts Payable, Ready To Run Accounts Receivable, Ready To Run Billing/Inventory, and Ready To Run Payroll. Steven just sent me review copies of his products the other day. He feels they should run fine on the Portable Plus. However, Steven thinks they will be awkward to use on the 16-line Portable. A special version for Lotus 1-2-3 on the HP150 is currently available. However, the products normally come on 5 1/4' disk.

If these accounting packages run well on the Plus and our reviewer thinks they are worthwhile, we will put them on our price list and make them available on 3.5" disk. In the meantime, you can reach Ready To Run people at the *Manusoft Corporation, 8570 W. Washington Blvd, Culver City, CA 90232, (213) 559-1561.* The general ledger retails for $69.95, the other modules $49.95, and all five packages for $249.95.

QUE BOOKS

We also spoke to the folks at QUE Corporation. They're the ones who publish specialized books on various pieces of microcomputer hardware and software. Two of the books I recommend especially for Portable users.

The first one, *The HP110 Portable: Power To Go*, was reviewed in issue 1 of *The Portable Paper*. It provides a good introduction to the HP110 for novice through intermediate users. Portable Plus owners will also find the book of value, although some sections will not pertain. The book retails for $16.95; *Portable Paper* subscribers can purchase it from Personalized Software for $15.95.

The second book is one of my favorites on Lotus: *1-2-3 Tips, Tricks, and Tracks*. This book, discussed in *The Portable Paper* issue 5, contains many short, useful specifics on how to make better use of Lotus. The book retails for $19.95, and we sell it for $18.95 to our subscribers. *QUE Corporation is at 7999 Knue Rd, Indianapolis, IN 46250, 800-428-5331.*

TURBO PASCAL NUMERIC METHODS TOOLBOX

Borland International introduced several new products at COMDEX, including an impressive equation solver called Eureka that is available only for the IBM PC and true compatibles. However, they did have a new toolbox of Turbo Pascal routines that engineers and scientists in our Portable audience will find of interest; it will probably be available on 3.5" disk January or February.

According to Borland, 'Turbo Pascal Numerical Methods does for Turbo Pascal what the IMSL and NAG mathematical routines do for mainframe FORTRAN users. The Toolbox implements the latest high level mathematical methods to solve the most common problems that arise in science and engineering. Because Toolbox comes complete with source code, you have total control of your applications.'

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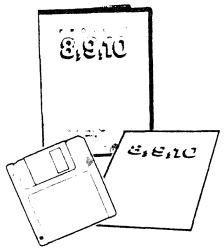

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The package consists of modules, most of which are independent. Each module has generic procedures that can easily be adapted to your own programs, as well as a sample program to demonstrate the usefulness of the procedures in that module. The modules include: Zeros of a function, Interpolation, Differentiation, Integration, Matrix Inversion, Matrix Eigenvalues, Differential Equations, Least Squares, Graphics, and Fourier Transforms.

The graphics module, which demonstrates Least Squares and Fourier Transforms graphically, works only with Turbo Pascal Graphix Toolbox, which is available from Borland for $69.95 and works only on the IBM PC or true compatible (not The Portables). However, the rest of the package should work on The Portables.

Finally, according to the Borland engineer I spoke with, some of the modules, especially the matrix operations, require over 200K of memory - HP110 users might have to clear off their Edisc. *Borland International* is located at *4585 Scotts Valley Dr., Scotts Valley, CA 95066, 800-255-8008 (CA: 800-742-1133).* Turbo Pascal Numeric Methods Toolbox will retail for $99.95; *The Portable Paper Subscriber* cost will be $89.95 when it becomes available.

TOUCHBASE DESIGN - 1200 HAYES COMPATIBLE SHIRT POCKET MODEM

I visited the friendly folks at Touchbase Design, makers of Portable 1200 baud modems. They have a brand new Hayes Compatible 1200 baud modem they want us to review.

We have mentioned their original product, the TravelComm 1200, several times in past issues of *The Portable Paper*. Thomas Page of Houston reviewed that product and found it unacceptable for HP Portable users. In his letter to the manufacturer on November 25, 1986, Tom said about the TravelComm 1200: 'Unfortunately, I had a problem with this product that made it impossible for me to recommend it to readers of *The Portable Paper*. I tried communication with several computers, including the IBM PC with CrossTalk, RBBS, and CompuServe. I could not download from CompuServe or from the PC using XMODEM. Two units were evaluated and I had problems with each. I do not have that problem with my (not very portable) VenTel modem.

'Connecting the TravelComm to the Portable's 9-pin RS-232 was a bit of a problem that was solved by making a short adapter cable. This was rather inconvenient and made the TravelComm much less portable. I hope your new model will offer a 9-pin male plug to mate with the Portable's RS-232 port. Just in case, I am enclosing data on the Portable's RS-232 port. To insure more secure connection to the Portable, I think the plug should be mounted on a short pigtail; I do not feel the plug on The Portable is sufficiently strong to support the TravelComm.

'I hope you have found my comments useful. Let me assure you that I will review your new product promptly and fairly in a real operating environment. You have a product that we HP Portable users need. I hope that a favorable report can be given to our readers soon.'

When I spoke to the Touchbase folks in Las Vegas, they were very much aware of Tom's efforts and spoke of the possibility of supplying a 9-pin connector for their new modem for Portable users. If Thomas can recommend the product, we will distribute the new modem through *The Portable Paper.*

The new modem is called the WorldLink 1200. It is a 300/1200 bps modem, compatible with the extended Hayes AT Command Set. Its features include auto-dial, auto-answer, and pulse and tone dialing. It supports Bell 103/212A and CCITT V.21/V.22 communication standards so it is usable in most countries throughout the world. It is full duplex and includes an adapter cable for optional acoustic cups. It comes with a 9-volt standard alkaline battery; the battery is good for about 10 hours of use. It is shirt-pocket sized: 4' x 2.4' x 1' and weighs 6.5 ounces with battery. It comes with a two-year warranty and retails for $199. We will announce if it becomes available through us, or you can contact *Touchbase Systems, 16 Green Acre Lane, Northport, NY 11768, (516) 261-0432.*

MANZANA'S 3.5" DISK DRIVES

I asked David Gluck, the president of Manzana MicroSystems, how HP Portable users might make use of his 3.5" disk drives. I'll tell you a little about his disk drives before sharing his answer.

Manzana disk drives attach to the IBM PC and compatibles and come with software able to read and write both HP and IBM formatted disks. Each disk drive is about the size of a video cassette and fits conveniently next to the monitor.

If you have an IBM PC or XT (or a compatible with a 37 pin D connector), Manzana has a disk drive that plugs in directly to your PC with no extra software or hardware. Otherwise, you will require an additional half slot mux adapter card from Manzana to connect the Manzana disk drive to your compatible or IBM AT. Manzana disk drives can be bought self-powered or can run off the PC's power and can run internally or externally to the PC. Depending on the option you choose, the disk drive costs between $355 and $535.

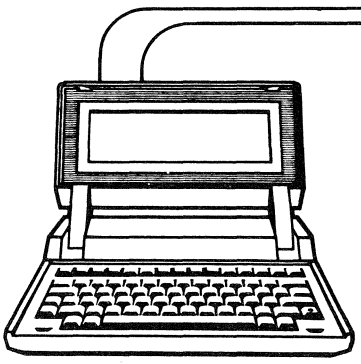
David's answer about the usefulness of his drive for Portable users was good enough to warrant this description of his product. He said that if you have your Manzana disk drive attached to your IBM PC at the office, you can bring 3.5" disks back and forth, to and from work - using your HP9114 disk drive with your Portable at home.

I also told David that many Portable users have requested a lighter, less expensive alternative to the HP9114 that runs directly off a normal wall outlet. According to David, the difficulty would be in interfacing his unit with The Portable, and he doesn't think the effort would be justified in the number of units he could sell. If you have suggestions or want to convince him otherwise, contact David or the company. For more information contact *Manzana Microsystems, PO Box 2117, Goleta, CA 93118, (805) 968-1387.*

Finally, if you decide which Manzana disk drive you would like to purchase and know its part number, *Personalized Software, PO Box 869, Fairfield, IA 52556, (515) 472-6330* would be happy to order it for you. If you're a *The Portable Paper* subscriber, we'll give you a 10% discount.

PORTABLE PROTECTION: CASES

I visited several vendors who had products for transporting Portables. Their products ranged from hard cases to



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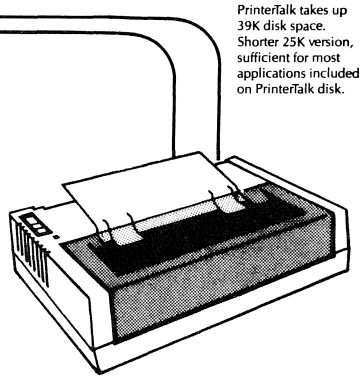
The MemoMaker Enhancer

It does the things you wish MemoMaker could do!



PrinterTalk takes up 39K disk space. Shorter 25K version, sufficient for most applications included on PrinterTalk disk.

MemoMaker users: Now you can take advantage of *all* your printer's features, not just bold and underline. PrinterTalk Version 1.2A, an easy-to-use software package from Personalized Software, prints your MemoMaker files, allowing you to:

- Change attributes (type styles) anywhere *within* the files you print—
  Bold, underline, *italic*, compressed, expanded
  (whatever your printer supports)
- Control numerous print functions, including:
  -number of copies
  -lines per inch
  -lines per page
  -spacing (including double, triple, quadruple)
  -automatic page numbering
- Avoid paper waste by preventing annoying form feeds
- Use your HP110 as an electronic typewriter
  -PrinterTalk connects your keyboard directly to your printer
  -Great for labels, envelopes, short notes, any small typing task
- Perform advanced features supported by your printer, such as superscripting and subscripting.

CUSTOMIZED FOR YOUR PRINTER

PrinterTalk stores the "escape sequences" (command codes) that tell your HP printer how to perform attributes and print functions. Escape sequences are already built into PrinterTalk for ThinkJet, LaserJet (and cartridges), and other HP printers, and you can easily customize PrinterTalk for any other printer as well.

SINGLE-KEY OPERATION

Instead of a hard-to-use, intricate series of control codes, a single labelled function key sends commands to your printer. Simple "help" screens in plain English tell you what to do, and all commands are summarized on a single sheet of paper for ready reference. The user manual is clear and concise, and includes easy-to-follow examples of all commands.

*Use you printer's **full** potential!*
Order PrinterTalk Version 1.2A today!

$49.95 *including manual*

***$44.95** for Portable Paper subscribers*

FREE UPDATE: If you already have version 1.2 or earlier, send it to us with a self-addressed stamped envelope (or send us $7.50), and we'll replace it with version 1.2A (20% less disk space than 1.2).

60-DAY MONEY BACK GUARANTEE

See order form for details.

TO ORDER

Use postage-paid order form inside back cover or send check or credit card information (#, exp. date, signature) to:

Personalized Software
P.O. Box 869, Fairfield, IA 52556 515/472-6330

SPECIAL OFFER:

Personalized Software's Hal Goldstein and FastAid's Ed Keefe Team Up! Put the MemoMaker enhancing utilities of

PrinterTalk & Format110

to work for you!

Special Low Price:
BOTH PROGRAMS now ONLY $59.95*—A $90 VALUE!

Format110 lets you format headers, footers, and page numbers - all centered, left or right justified; chain or merge documents; and preview your document on screen. Format110 also lets you send your document to your disk file or printer and compensates for "widow and orphan" lines. Disk includes the manual and Turbo Pascal source code. Format110 usually sells for $39.95, now with PrinterTalk it's only ***$59.95**.* ***Order both today*** and get all the text formatting and printing control you need.

Existing Format110 owners: get PrinterTalk for only $19.95.
Existing PrinterTalk owners: get Format110 for only $19.95.

briefcase-like products to soft-padded carrying cases.

• Hard Cases

If you need hard-core protection, Wilson Cases, Inc. might have the solution. Suppose you want to ship your Portable and peripherals with your other airline baggage rather than take your Portable equipment on the plane with you. You could do it with a Wilson Case. These hard cases come in two forms. The DuranTran style cases are 100% airline approved and have externally mounted steel locks and handles. The more expensive cases meet or exceed all Air Transport Association standards for re-usable shipping containers.

Wilson cases are used to ship testing and analyzing equipment, computers, and other sensitive equipment, so your Portable, ThinkJet, and Disk drive would certainly be safe in either kind of case.

I spoke to sales manager Bob Gartin and gave him the dimensions of Portable equipment. He said that he could custom- make his high quality hard cases to our specifications for $209 and $249. You still will want your HP or other soft case for local travel and for protection within the hard case. For an extra $30 they can create internal padding to protect your Portable, ThinkJet, and HP9114 from one another so you can ship without softcase.

If you are interested in purchasing a Wilson case for your Portable, contact me at *Personalized Software, PO Box 869, Fairfield, IA 52556, (515) 472-6330*, and we'll get them working on it. We'll take something off his quotes for subscribers. Otherwise, if you have your own specifications or want to talk to them directly, contact *Wilson Case, Inc,* our neighbors to the west of us at *PO Box 338, Juniata, Nebraska 68955, (402) 751- 2145.*

• Attache Case For Your Portable

Investment Software makes a sharp-looking brown leather attache case designed for Portable usage. A center piece divides the case so that The Portable can go in one half and disks, papers, notebooks, etc., can go in the other half. It looked to me like a Portable and either the ThinkJet or the HP9114 might fit in one half, but it would be tight.

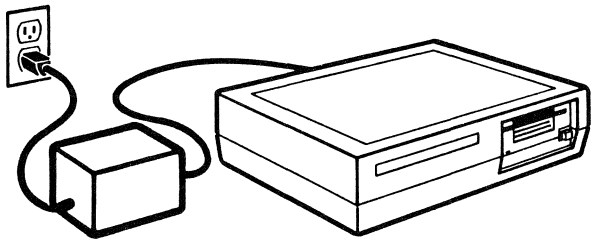
I'd recommend the case if you wanted a single handsome case to carry both The Portable and a brief case worth of paraphernalia on trips. The retail cost is $169 plus $10 shipping plus California tax if applicable. *Investment Software* is located at *PO Box 2326, Roseville, CA 95746, (916) 791-2724. The Portable Paper* subscribers: Contact *Personalized Software, PO Box 869, Fairfield, IA 52556, (515) 472-6330* if you would like the case for $155 plus shipping.

• Soft Padded Cases For ThinkJet And Portable

We also looked at Field Pro computer cases distributed by Amherst International. These are rugged, attractive cases covered by a lightweight, abrasion-resistant, waterproof, stain-and-mildew resistant fabric. This fabric covers several layers of 1/4' to 1/2' high-density shock foam and soft urethane foam. There are full side and top zippers - 'the finest available' - that let you have complete access to equipment as well as items stored in internal pockets.

HP Portable users will be interested in two of their matching cases. Their V12085 laptop carrying case weighs 1.25 pounds and is 12.5" x 13" x 3.5". It is padded better

THE HP9114 EMPOWERER



If you've been frustrated trying to use your HP9114 external disk drive only to have the battery quit before you've finished your work, then you know the problem. Now you need the solution.

THE PROBLEM:

The charge on your HP9114 battery doesn't last long enough for you to do all you'd like to. For that matter, in some cases it doesn't last long enough to do *half* of what you'd like to.

According to Hewlett-Packard, you get up to 40 minutes of continuous usage before the battery dies. We've never gotten more than 20. Just formatting disks, transferring files or running disk intensive software and getting it to work can be a major triumph.

Plugging in the HP9114 doesn't help, either. That only recharges the battery—it doesn't let you keep working.

WE HAVE THE SOLUTION:

The official HP suggestion is to buy another battery pack and keep both plugged in. When one loses power, replace it with the other. This seems clumsy to us. What if you want to do several hours of disk intensive work? **At *Personalized Software* we have a better solution—2, in fact. Either will solve the problem.**

SOLUTION 1: This is a special power supply. It will allow your HP9114 disk drive to run forever. Just remove the battery pack, plug Solution 1 into the open slot and into your wall outlet. It's that easy! And lets you run your HP9114 to your heart's content. It costs $129 if you're a *Portable Paper* subscriber, $145 if you're not. SOLUTION 2: A power supply *and* battery pack. Solution 2 includes Solution 1 and a modified HP battery pack you can substitute for yours. Our special battery pack lets your Portable run directly off your wall outlet. You can plug in the regular HP charger at the same time, so your battery pack always stays completely charged. Solution 2 sells for $199 to Portable Paper subscribers; otherwise it's $225. Both solutions are custom-made. Both solve the HP9114 battery problem. And both will let you finish your work.

60-DAY MONEY BACK GUARANTEE

See order form for details.

TO ORDER

Use postage-paid order form inside back cover or send check or credit card information (#, exp. date, signature) to:
Personalized Software
P.O. Box 869, Fairfield, IA 52556 515/472-6330

Please allow 3-4 weeks for delivery.

How many times have you wished you had a 2nd external disk drive? Personalized Software is selling (for a limited time) complete HP9114A units including power supply at a substantial discount. Call 515/472-6330 for details.

than the Portable's case and comes with adjustable shoulder strap and padded handle. Inside the case, a padded flag folds over the computer and fastens with velcro. The flap has an internal pocket for diskettes and documents.

The other case, the V12005, can be used either for the ThinkJet or the HP9114. According to the Amherst International representative, Hewlett Packard has bought a number of these cases to carry ThinkJets. The case is fully padded and has dual zipper slide. The strap type handle may be hooked between the handle of the Portable case and carried in piggyback fashion. The case contains a 'cable wallet' and room for miscellaneous components and documents.

The Portable case retails for $59.95, the ThinkJet case for $39.95. *Portable Paper* subscribers can purchase them from *Personalized Software, PO Box 869, Fairfield, IA 52556, (515) 472-6330* for $54.95 and $36.95 respectively.

You can contact *Amherst International* directly at *800-547- 5600, 540 N. Commercial St, Manchester, NH 03101*.

• Disk Carriers

Finally, the folks at *CompuCover, 1 Andalusia St., PO Box 310, Mary Esther, FL 32569, 800-874-6391*, gave me a sample of one of their disk wallets. I like it. You can put six 3.5' disks into this wallet that folds down to 4' x 9' and fits into a man's jacket pocket. This product sells for $9.95 and comes in blue, red, grey, maroon, and brown. If you call, ask them for a catalog, as they have other disk products Portable users might be interested in.

RIGHTWRITER

Ed Keefe, in 'The Connection' column, issue 3, page 22, discussed RightWriter from DecisionWare. RightWriter 2.0 flags errors in grammar, style, usage, and punctuation, with comments inserted directly into the document to point out errors. It produces an overall critique of a document, including strength of delivery, use of jargon, and grade level. It generates a list of misspelled, slang, and uncommon words. RightWriter uses over 2200 rules and has a dictionary of 45,000 words.

RightWriter 2.1 has not yet been announced, but will be available in January. It runs with most word processors and adds 500 more rules to pick up grammar and punctuation errors.

DecisionWare is located at *033 Wood Street, Suite 218, Sarasota, FL 33577, 800-992-0244*. RightWriter is normally sold on 5 1/4' disk for $95. You can order it on 3.5' disk from *Personalized Software, PO Box 869, Fairfield, IA 52556, (515) 472-6330*. Subscribers pay $89.

MIND PROBER

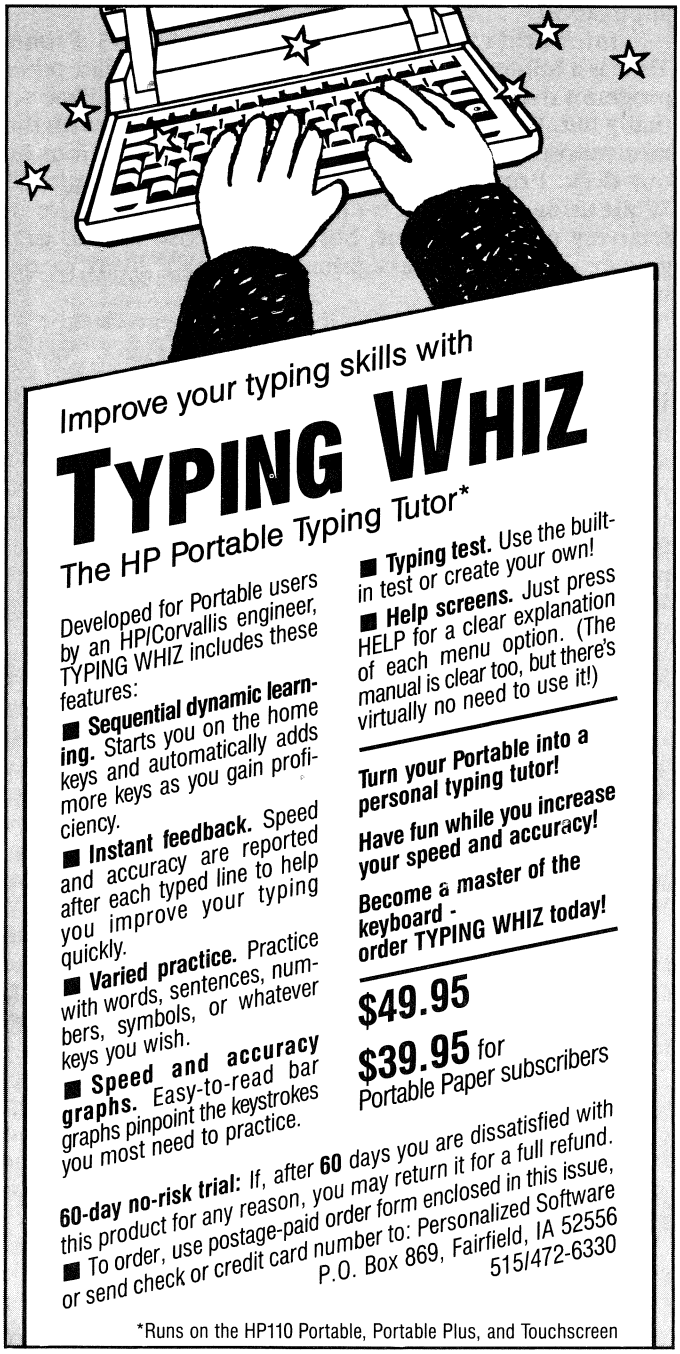
Mind Prober asks a series of questions that you can answer about yourself, a friend, or an associate. It has received good reviews, and is said to print a surprisingly accurate and useful personality report.

This product is available from us, and also from *Human Edge, 1875 South Grant, 4th Floor Suite 480, San Mateo, CA 94402-2669, CA: 800-824-7325, US except CA: 800-624-5227*, for $49.95. Subscribers ordering from us pay $44.95.

A TIME MANAGER FOR THE PC

One of the questions I am most frequently asked is, will the Portable Time Manager run on the IBM PC or the HP150? Unfortunately, the answer is no. The best you can do is transfer your to-do list (**tm.tdo**), address list (**tm.nam**), appointment list (**pam.alm**), and notes (***.not**) to your desktop PC. Since these are ASCII files, they can be read by most word processors and some database managers - but it is up to you to manipulate them and put them in a form palatable by other programs.

If you're hooked on Time Manager and would like an equivalent/better program on the PC, one is available. It's called PrimeTime from Wiseware. The bad news is that



Typing Whiz is one of the better typing programs on the market and is priced competitively. If you want to learn or improve your typing, buy Typing Whiz. Typing Whiz is on my highly recommended list.
—Dave Mark, L.A. Scrug Notes, newsletter.

there is, at this time, no way of transferring files back and forth from Prime Time to HP's Time Manager. The good news is that it is very good program. (For a full review see the Aug. 25, 1986 issue of InfoWorld, where it fared very well.)

PrimeTime is a time- and task-management system that organizes and keeps track of time commitments, things to be done, assignments given to others, notes, and reminders, and also is a personal phone directory. It is designed to help you get things done, focus on your highest priorities, and use your time more effectively. It can be run either as a memory resident program or as a regular application.

InfoWorld concludes in its review, 'at $99.95, PrimeTime is a full-featured time management tool. Unlike other programs that promised to get us organized, PrimeTime actually did. We found that PrimeTime provided us with the motivation and means to organize the major functions on our desk. PrimeTime works and is worth every nickel. While using PrimeTime, we not only were able to more effectively utilize our time, but we were also able to gain greater control over assignments we had given to coworkers as well.'

I have just started using it on my Compaq Deskpro. I find it even better than HP's Time Manager. Again, remember that this program runs only on the IBM PC, HP Vectra, or true compatible, and files are not transferable from HP Time Manager into PrimeTime. Perhaps it is best to use HP Time Manager when traveling and PrimeTime on your PC at the office.

I have decided to put it on our price list at the back of this issue. PrimeTime retails for $99.95; subscribers can purchase it for $89.95. Alternatively, you can contact *WiseWare* at *3176 Pullman St., Suite 106, Costa Mesa, CA 92626, (714) 556- 6523*.

NEGOTIATION AND CREATION

I have always been fascinated by both the creative process and persuasive ability. I remember reading with interest reviews of two pieces of IBM PC software developed by Experience In Software: The Art of Negotiating and The Idea Generator. The Art of Negotiating is based on the classic text in the field, also named *The Art of Negotiating*, by Gerard I. Nierenberg. The Idea Generator is based on Nierenberg's *The Art Of Creative Thinking*.

Before the microcomputer age, such topics as creativity and negotiation were taught through books and seminars. A book is essentially a passive, linear medium for learning. Seminars are expensive and time consuming, and learning retention often drops off quickly.

Software is an interactive medium. You act and it responds, it responds and you act. Potentially, software is an excellent means both to teach and to apply specialized knowledge. *The Art of Negotiating* and *The Idea Generator* are designed to help business people discover new approaches to negotiating and creative thinking.

As I traversed the maze of COMDEX booths, I was pleased to encounter Experience In Software's booth. I talked with Roy Nierenberg, Gerald's son, who is president of the company. I asked him some questions to get a feeling for whether the programs would run on The Portables.

Based on his response I was not optimistic, but I agreed to be sent review copies of the programs so I could test them on The Portables.

Here is what I found: After doing some experimenting, I got The Art Of Negotiating to work perfectly on the Portable Plus. It will not work on the Portable. On the HP150 not only doesn't it work, but when I tried it with **pc.exe** (the utility we sell with the Norton Utilities to make them work on the HP150), it corrupted the directory table, making the disk unreadable.

In order to make it run on the Plus, I set console mode as Alternative in the **System Config** menu. All the cursor and function keys required by the program worked fine. When the program requested **f10**, the Portable Plus User System key did the trick. (In general if an IBM PC program does not run directly, using Alternative mode is the best strategy to get the program to run on either Portable.)

Unfortunately, Idea Generator did not work at all. The screen locked up immediately. I called Roy, and he said he would have his programmer look into it.

We will review The Art Of Negotiating in detail in a future issue. In the meantime I will quote the last paragraphs of InfoWorld's reviews of the two products. In the April 15, 1985 issue the reviewer concludes: 'The Art of Negotiating is a useful program that guides you through the preparation for a negotiation. The program's specific use is to prepare for a single negotiation, with printed output that you can use as a basis for discussions with your own team, and for analysis of the outcome of the negotiation. Although some screens may seem awkward, the program can be used by people who have almost no computer experience to study and prepare for the most important interchanges they have with other people.'

The September 29, 1986 review of Idea Generator ends: 'We found the Idea Generator's structured approach to problem solving forced us to clarify our goals. But where it really earns its keep is in the number of ideas for solutions it helped us generate. The bottom line is that those tackling little or occasional problems may be satisfied using their outline program. But managers of entrepreneurs who need a boost in brainstorming will find that the Idea Generator really can stimulate fresh thinking about old and new problems.' Let's hope that Experience In Software comes up with a solution for Portable users.

The Art Of Negotiating comes with a 5 1/4' disk, a manual, a workbook, and *The Fundamentals of Negotiating*, which is the hardbound collection of two volumes—*The Art of Negotiating* and *Creative Business Negotiating*. The product retails for $495. We will give *The Portable Paper* subscribers a 20% discount - $395 - and we'll offer the product on 3 1/2' disk.

At this time the Idea Generator works only on the IBM PC or true compatible. It comes with 5 1/4' disk, a very readable manual, and the book *The Art Of Creative Thinking*. It retails for $195. Subscribers can order the product from us for their PC at $179.

MORE TEACHING TOOLS: DOS AND LOTUS

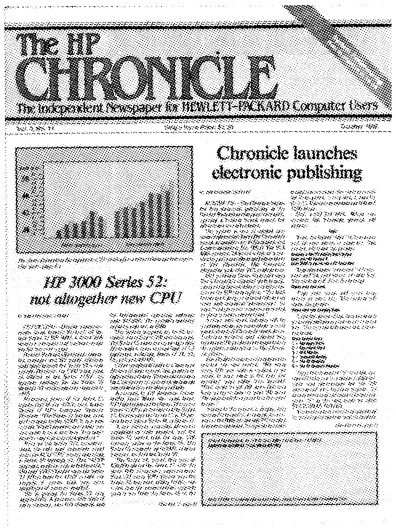
FlipTrack Learning Systems will be sending us a set of audio tapes on DOS and on 1-2-3 for review. They have received positive reviews in a variety of journals, including PC Magazine, Lotus Magazine, and Inc. These magazines tout the cassettes as an excellent self-paced means to come up to speed on DOS and 1-2-3 quickly. There are four 2-hour Lotus audio cassettes and three 2-hour DOS cassettes.

FlipTrack Learning Systems can be reached at *999 Main St., Glen Ellyn, Il 60137, 800-222-3547*. DOS retails at $69 ($59.95 for *Portable Paper* subscribers). Lotus retails for $89 ($79.95 for *Portable Paper* subscribers).

We received from Individual Software two 5 1/4' software programs for the IBM PC designed to teach DOS and

PCI delivers the news!

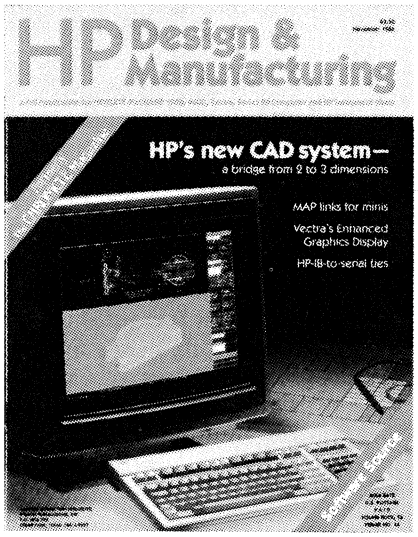
News



The HP Chronicle

The only newspaper devoted exclusively to HP 3000 computer users. Each monthly issue includes the latest news, productivity tips, new products, help columns, and classifieds.

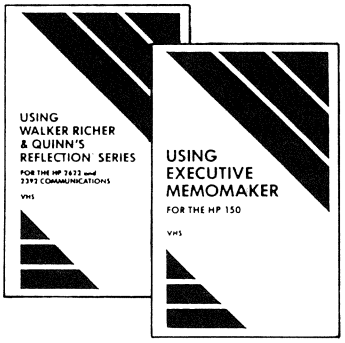
Scientific Data



HP Design & Manufacturing

The journal for scientists, engineers, and others who use HP technical computers. Each monthly issue includes programming tutorials, new product updates, applications features and technical trouble-shooting.

and Training



SVP Software Video Productions

Training courses for the HP computer user. Software Video Productions offers USING EXECUTIVE MEMOMAKER for the HP 150 and USING WALKER RICHER & QUINNS REFLECTION SERIES for the HP 2622 and 2392 Communications. Up-to-date training techniques and individualized instruction at affordable prices.

SUBSCRIPTION MEMBERSHIP APPLICATION

Name _____ Title _____

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Phone _____ Equipment _____

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Signature _____

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☐ ***HP Design & Manufacturing***
US $42 Foreign $78

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U.S.A. (800) 531-5093 or in Texas call (512) 250-9023.

PP.11.86

Lotus. I tried them on the Portables with no luck. I can't tell you much more about the products accept that *Individual Software* can be contacted at *1163-I Chess Dr., Foster City, CA 94404, (800) 331-3313*. The retail cost is $59.95 for Professor DOS and $69.95 for Individual Training For 1-2-3.

Two of our staff, novices with 1-2-3 and DOS, will try out both the cassettes and the disks, and we'll report back.

SOME TIDBITS

For those of you who cannot live without your HP12C calculator when working on your IBM PC, Popular Programs has a solution for you. For $69.95 ($89.95 if you want the HP12C's programming capabilities), you can run their program: Pop-Up PC-12C. If you run the 58K program as memory resident you can pop up an HP12C clone any time you wish. You can also run it as a normal standalone program. (If you order through Personalized Software, we'll take $10 off the retail price.)

The folks at Abacus Software gave me a copy of 'Turbo Pascal Tricks and Tips'. Skimming through the book it seems appropriate for intermediate users. There are well-written sections on searching, sorting, Input/Output routines, DOS, and more. *Abacus Software* is at *P.O. Box 7211, Grand Rapids, MI 49510, (206) 241-5510.*

More Products

THE WORD PLUS ON OUR PRICE LIST

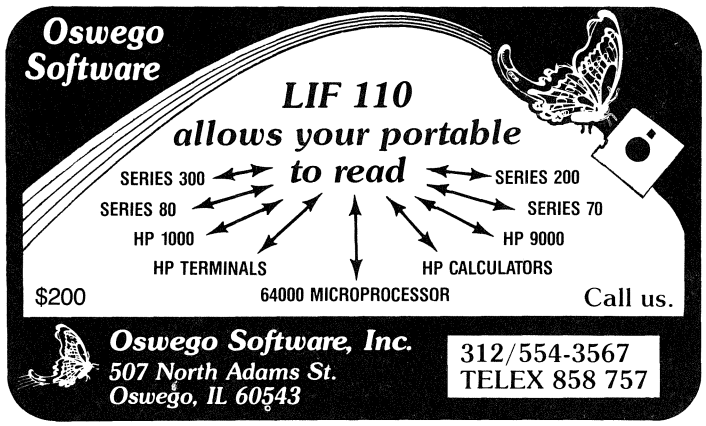
In *The Portable Paper* volume 1 issue 3 page 22, Thomas Page reviewed a spelling checker called The Word Plus that works well on both the Portable and the Portable Plus. Many customers have called in and asked us to supply this software customized for the Portables on 3.5' disk. The product has received positive notices in such columns as Jerry Pournelle's popular 'Chaos Manor' (Byte magazine).

After talking this over with the publishers of The Word Plus, we will augment their 5 1/4' disk with an additional 3.5' disk containing specific customization for the Portables. The Word Plus retails for $150 from *Oasis Systems, 2765 Reynard Way, San Diego, CA 92103, (609) 453-5711*. *Portable Paper* subscribers can purchase the product from us for $129 by giving us a call at (515) 472-6330 or using the order form in back of this issue.

T/MAKER

Rodman Sharp of Sante Fe put the T/Maker Company, publishers of integrated package T/Maker, in contact with me. T/Maker's Sonja Roizen sent me a review copy and was very encouraging - she felt T/Maker would run on The Portables. The literature that comes with the machine says it works fine with the HP150, but I will double check.

T/Maker would be ideal for the Portables since it requires only 128K to run, and it includes as one integrated package a full word processor, relational database, free-form spreadsheet, bar chart graphics, and a 55,000 word spelling checker. The word processor includes automatic footnoting, multiple screen forms, and rapid field restructuring. Its free-form spreadsheet is simple to use, and the data base manager allows multiple screen forms and rapid field restructuring. Separate data bases can be linked to create new ones or to generate sophisticated reports. You can add words to the spelling checker, or create new dictionaries for specialized uses. T/Maker includes a macro language and user-definable menu system so you can customize the program to your needs. It contains On-Line Help.



Sonja sent me a pile of positive reviews and told me its mostly marketed in Europe - that's why it is not well-known in the states.

My first round of testing on The Portables dampened my enthusiasm. The good news was I was able to get up all the screens in the tutorial. The bad news is that the keyboard did not respond as specified. For example, **CTRL Q** or **f1** are supposed to exit the editor, however **CTRL ** finally got me out. I tried both **HP** and **Alternate Console Mode** from PAM's **System Config**, and no combination worked correctly. I will be in touch with T/Maker Company to see what if we can get the program to work properly. I hope so.

T/Maker retails for $295. They are at *T/Maker Company, 1973 Landings Dr, Mountain View, CA 94043, (415) 962-0195*.

AXONICS: BACKLIGHTING AND MORE

Axonics are the folks that will backlight your Portable. Peter Smith of Arlington, VA wrote me a short note telling me that although their were some original logistics problems, he was very pleased with the results: 'It is really great. I'd recommend it highly for increased viewing power.' HP110 or Portable Plus users can send their machine to Axonics for one week to receive the $300 upgrade.

Dave Cox, VP of Marketing, told me that have at least two other products HP Portable users might be interested in. First of all, they used to manufacture an HP-IL to Centronix converter. This means you could hook up your Portable with the parallel printer you have running off your IBM PC or compatible. David told me that if there is interest (contact me or Axonics), they will manufacture more.

The other product of interest is a portable, true letter quality Daisywheel serial printer - 12 characters per second, 13 pounds, A/C only. The Brother HR10 retails for $349. David said he would send me a Brother HR10 for review for he seemed to recall some difficulty making it work with The Portable. We'll report the results. *Axonix Corporation* can be contacted at *417 Wakara Way, Salt Lake City, Utah 84108, (801) 582-9271*. If you would like to order any of their products including the backlighting through us, we'll give *The Portable Paper* subscribers a 10% discount.

The Official Hewlett Packard Software Availability List

The following is a list of software available for the HP110 and the Portable Plus personal computers. This list was compiled by Hewlett Packard and based on information and products supplied by vendors as of September 10, 1986. The list will be updated as new products become available and existing Portable software is tested for reliability on the Portable Plus.

The products are listed by subject; within each subject they are either HP- or (non-HP) vendor-distributed products.

HP products can be ordered from your HP dealer or by calling 800-538-8787.

Accounting Systems

Hewlett Packard

Rags to Riches
- Ledger™ 45520C $ 99 HP110
Ledger is an easy-to-use accounting package for small businesses. Integrates with Rags to Riches Sales, Receivables, or Payables modules.
- Payables™ 45523C $ 99 HP110
This easy-to-use program helps small businesses analyze their cash flow. Integrates with Rags to Riches Ledger.
- Receivables™ 45522C $ 99 HP110
This automatic billing system for small businesses shows a customer's payment status at any given time. Integrates with Rags to Riches Ledger.
- Sales™ 45521C $ 99 HP110
This product provides easy-to-use record keeping and sales analysis for small retail businesses. Integrates with Rags to Riches Ledger.

Outside Vendor

CYMA Accounting Series & The Shoebox Accountant HP110
CYMA Corporation, 2160 E Brown Road, Mesa, AZ 85203 602-835-8880

Communications

Hewlett Packard

Reflection 1™ 82863K Opt 400 $395 Plus
Plug-in ROM Software
This powerful data communications product provides DEC VT102 terminal emulation and file transfer using CRC-CCITT or XMODEM protocol.

YTerm 82867K Opt 400 $ 95 Plus
Enables Portable Plus to communicate and exchange files with IBM mainframes, as well as run full-screen applications designed for IBM 3278 terminals.

Outside Vendor

Acculink™ HP110/Plus
Async file transfer and terminal emulation. *IE Systems, Box 359, 112 Main St., Newmarket, NH 03857 603-659-5891*

CompuServe Starter Kit HP110/Plus
Gets you started on CompuServe, an electronic information service that includes HP Forum. Includes $25 of free time, complete users guide, permanent user ID number and preliminary password, and OnLine Today, CompuServe's monthly magazine.
Can be ordered from Personalized Software, P.O. Box 869, Fairfield, IA 52556, 515 472-6330

POLYXFR HP110/Plus
Provides error-free transfer of both ASCII and binary files between PC's, minis, and mainframes also running Polygon software. *Polygon Associates, 1024 Executive Parkway, St. Louis, MO 63141-6304 314-576-7709*

Computation & Analysis

Outside Vendor

1-2-3 for Business HP110
Designed for use with Que's best selling book, 1-2-3 for Business. Fourteen practical business models are contained on the diskette. *QUE Corp., 7999 Knue Rd. Suite 202, Indianapolis, IN 46250 800-842-7162*

BOTTOMLINE-V HP110
Financial planning and decision support system that allows a twelve-month cash flow, budgeting and break-even analysis. *ILAR Systems, Inc., 1300 Dove St., Suite 200, Newport Beach, CA 92660 714-476-2842*

Moneycalc Plus and Tax Planner Plus HP110
(1-2-3™ from Lotus™ templates) Personal financial planning - 50 templates. *Moneytree Software, 1753 Wooded Knoll Rd. Suite 200, Philomath, OR 97370 503-928-2140*

Microcomputer Statistical System HP110
MSS Software, P.O. Box 774, Greenwood, IN 46142 317-882-8907

Sigstat HP110
Mainframe statistics: 77 programs for business, industry, and education. *Significant Statistics, 3336 N Canyon Rd, Provo, UT 84604 801-377-4860*

Database Management

Hewlett Packard

dBASE II® 45468D $500 HP110/Plus
Data base management is easy with dBASE II. You can construct and manipulate data files for general ledger, check management and writing, and other functions.

Executive Card Mgr. 45555K Opt. 400 $295 Plus
Plug-in ROM Software
Has the simplicity of a desktop card file with the power of a fully functional file manager. Designed for professionals and managers, ECM stores up to 64,000 cards per file, a comprehensive built-in report writer, and sorting. Design your own card format with up to 255 lines of information per card.

Executive Card Manager: Templates 45441D $125 Plus
Provides instant fill-in-the-blank user productivity. Consists of a collection of modifiable card file and report formats representative of 21 business environments and situations well addressed by Executive Card Manager.

Outside Vendor

dBIII Compiler HP110/Plus
dBASE III Compiler, transforms applications written in dBASE III command language into programs that be directly executed without the presence of dBASE III. *WordTech Systems, P.O Box 1747, Orinda, CA 94563 415-254-0900*

Notebook II HP110/Plus
Ideal for keeping research notes, bibliographies, product descriptions, and client and customer records, and for cataloging documents and collections. *Pro/Tem Software, 814 Tolman Dr. Stanford, CA 94305 415-497-1000*

Retrieve.All HP110
Text manager and proximity key word search. *Telesis Art International, Inc., 60 West 75th St. #6E, New York, NY 10023 212-580-2609*

Electronic Spreadsheets

Hewlett Packard

1-2-3™ from Lotus Built-in HP110
An important tool for making business decisions, 1-2-3 from Lotus offers you the combined powers of information management, spreadsheet analysis, and a business graphics program.

1-2-3™ from Lotus 45548K Opt. $495 Plus
Plug-in ROM Software

Outside Vendor

MicroPlan™ & Micro-Plan™ Cons. Module HP110
Helping you to access frequently needed data, MicroPlan is a valuable aid for analyzing information. The Consolidation module lets you use MicroPlan for incorporating data you obtain from mainframes, timesharing services, and other software packages. *Chang Labs, 5300 Stevens Creek Blvd, San Jose, CA 95129-1088 408-246-8020*

Engineering

Outside Vendor

Fluid Engineering, Liqtherm, Multidia, Pumpcurv and Pumpsys HP110
Several packages designed to help increase productivity where and when you need it. *Systek, 963 N Brandywine, Corona, CA 91720 714-734-1351*

h2s Data Acquisition & Control Plus
3-D Imaging Systems, 1108 NE 200th, Seattle, WA 98155 206-363-0706

Entertainment

Hewlett Packard

Sorcerer™ 92243YA $34.95 HP110/Plus
A follow-up to Enchanter, this game tries your valor in the quest for the title of Sorcerer. Now a full-fledged member of the Circle of Enchanters, it's up to you to rescue Belboz the Necromancer and save the kingdom.

Zork® I 92243CA $29.95 HP110/Plus
Open the door to an exciting underground empire with Zork I. Escape, if you can, with your life and the 20 treasures of Zork.

Outside Vendor

Tiger Fox HP110/Plus
An arcade-type game of changing mazes and double pursuit. *Personalized Software, PO Box 869, Fairfield, IA 52556 (515) 472-6330*

Personal Solutions

Hewlett Packard

The Calendar 35151D $49.95 HP110
A personal time management program presented in a daily calendar format. The Calendar provides you with options to review daily, monthly, and yearly calendars.

The List Manager 35152D $49.95 HP110
This package is an information management program for individuals who need to collate lists of names, account numbers, addresses, and phone numbers. The List Manager also includes report generation and sorting capabilities.

Personal Corres.Pack 35156D $125 HP110
This combination pack lets you compose a letter on The Writer, correct spelling errors with The Speller, and send it out with a mailing list compiled with the List Manager.

Personal Org. Pack 35157D $125 HP110
Organize your life! Let The Calendar help schedule appointments, The List Manager organizes phone and address list, and The Planner track home finances and investments.

The Planner 35155D $49.95 HP110
An easy-to-learn spreadsheet program, The Planner is perfect for people who occasionally need to analyze spreadsheets.

The Speller 35154D $49.95 HP110
This convenient spelling checker can be used with The Writer, WordStar, MemoMaker and Volkswriter text files.

The Writer 35153D $49.95 HP110
A friendly, full-featured word processing package, The Writer is ideal for people who do occasional writing and editing.

Outside Vendor

Executive Planning Calendar HP110
Lotus 1-2-3 electronic datebook (US only). *Remex Corporation, 6095 28th St. SE. Suite E., Grand Rapids, MI 49506 616-942-9800*

Shelp $ 55 Plus
An installable device driver which gives access a 'pop-up' calculator, note pad, keyboard macros and a remote off function from within any non-graphics based application. Designed to increase productivity with practical efficiency. *User's Library, 1000 NE Circle Blvd., Corvallis, OR 97330 503-757-2000 • Personalized Software, PO Box 869, Fairfield, IA 52556 (515) 472-6330*

Traveling Software HP110/Plus
Tracks personal and business appointments and expenses. An extensive project management system is also available. *Traveling Software, 11050 5th Ave., NE, Seattle, WA 98125 800-343-8080*

Typing Whiz HP110/Plus
Better than almost any typing program on the market. Immediate numeric and graphic feedback of your progress. *Personalized Software, P.O. Box 869, Fairfield, IA 52556 515-472-6330*

Programming

Hewlett Packard

BASIC by Microsoft® 45445D $300 HP110
This BASIC interpreter lets you write a program, correct it, then test its logic with easy-to-use commands.

BASIC by Microsoft® 82862K Opt. 400 $300 Plus
Plug-In ROM Software
Program on the go with BASIC and the Portable Plus.

Compiled BASIC by Microsoft® 45446D$395HP110/Plus
Compiles BASIC executes programs faster and uses less memory than interpreted programs. It's also compatible with most of the interpreted syntax.

FORTRAN by Micrsoft® 45449D $395 HP110/Plus
Designed for use with MS-DOS, FORTRAN is a Microsoft subset implementation of the ANSI standard V-77 FORTRAN. The program helps programmers implement computer-bound applications while maintaining code transportability.

GW™ BASIC BY Microsoft® 45450D $395 HP110/Plus
This product combines an advanced BASIC interpreter with a full screen editor, graphics command set, data communications features, and other powerful programming capabilities.

Lattice® C Compiler 45452D 495 HP110/Plus
The Lattice C Compiler is the industry standard C language for programmers interested in performance. Package includes compiler, linker, librarian, four memory modules, numerous library functions, low-level input/output functions, the Terminal Independence Package, and more.

Pascal by Microsoft® 45447D 350 HP110/Plus
A programming language designed for use with MS-DOS, Pascal by Microsoft accepts and compiles programs written according to the ISO standard and the full Microsoft Pascal syntax extensions.

Programmer's Tools 45419C $325 HP110/Plus
This package contains MS-DOS software development utilities and documentation to help you develop or adapt programs for the Portable and Portable Plus.

Technical Reference Man. 45559K $100 Plus
Contains information necessary to develop both hardware and software for the Portable Plus.

Outside Vendor

AZTEC C HP110
A complete implementation of UNIX V7 'C', includes relocating assembler, linkage editor, library utility, debugging aids, overlay support, and run time routines for I/O, utility, and scientific functions. *Manx Software Systems, 1 Industrial Way, Eatontown, NJ 07724 800-221-0440*

Borland Turbo Products

-Turbo Pascal HP110/Plus
The HP Portable programming language of choice, Turbo Pascal outstrips others in price, performance, compatibility, memory consumption, and programmer environment. The WordStar-type editor alone is worth the price. Includes extra disk customizing Turbo editor to the Portables' editing keys.

-Turbo Toolbox HP110/Plus
Creates a database file management system.

-Turbo Tutor HP110/Plus
A step-by-step interactive tutorial on Turbo Pascal programming. *Personalized Software, P.O. Box 869, Fairfield, IA 52556 515-472-6330*

Cosort HP110
A general purpose sort/merge facility for end users and system developers. *Information Resources, Box W, 70 Boundale S., Manhasset, NY 11030 516-365-7629*

CRT!(RM/COBOL Reprogramming Tool) HP110/Plus
Dictionary-based program generator for RM/COBOL, which is a high-level ANSI-74 COBOL with multikey ISAM. *Cybernetics, 8041 Newman Ave., Suite 208 Huntington Beach, CA 92647-7089 714-848-1922*

EDIX (Programming Editor) HP110
Screen-oriented text editor, offers insert and overtype modes, user-settable word wrap margins and tabs, side-to-side continuous scrolling, and much more. *Emerging Technology Consultants, Inc., 2031 Broadway, Boulder, CO 80302 303-447-9495*

File Utilities II HP110
A package of UNIX-style software tools specially adapted for the MS-DOS environment. Fourteen utilities are provided. *The Programmer's Shop, 128 Rockland St., Hanover, MS 02339 800-421-8006*

LIF 150/110 Utility HP110
Allows file interchange with HP technical computers. *Oswego Software, 507 N. Adams, Oswego, Il 60543 312-554-3567*

NGS Forth HP110
A complete Forth language development system. *Next Generation Systems, PO Box 2987, Santa Clara, CA 95055 408-241-5909*

Pascal Programs For The Portable HP110/Plus
A disk full of Turbo Pascal source code prepared specifically for Portable users. *Personalized Software, PO Box 869, Fairfield, IA 52556 (515) 472-6330*

PC/Forth HP110
Laboratory Microsystems, Inc., PO Box 10430, Marina Del Rey, CA 90295 213-306-7412

Programming HP110/Plus
PH.D, PO Box 5009, Los Alamitos, CA 90721 213-438-6973

Prolog 86 HP110
An interpreter for the programming language Prolog. *The Programmer's Shop, 128 Rockland St., Hanover, MA 02339 800-421-8006*

RM/COBOL (Ryan McFarland COBOL) HP110/Plus
Cybernetics, 8041 Newman Ave., Suite 208 Huntington Beach, CA 92647-7089 714-621-0581

Project Management

Outside Vendor

Milestone HP110/Plus
Project manager for small to medium projects. *Personalized Software, PO Box 869, Fairfield, IA 52556 (515) 472-6330*

Pertmaster HP110/Plus
Creates, updates, and reports on project plans. For medium to large projects. *Westminister Software, Inc., 2570 El Camino Real, Mt. View, CA 94040 415-941-6800 • Personalized Software, PO Box 869, Fairfield, IA 52556 (515) 472-6330*

Project 8,9,10 HP110/Plus
A Lotus template that helps you manage small to medium projects. *Personalized Software, PO Box 869, Fairfield, IA 52556 (515) 472-6330*

Sales Force Automation

Outside Vendor

The Saleseye™ Lead Mgt. System Plus
Follow-up management system. Integrates a comprehensive database, word processor, and time management system into one. *High Caliber Systems Inc., 165 Madison Ave., Suite H, New York, NY 10016 212-684-5553*

The Account Executive Plus
Tracks a salesman's position in a long-term selling campaign. It facilitates a strategic approach to sales. *Software Design, 1731 W Division, Arlington, TX 76012 817-261-8826*

Utilities

Outside Vendor

Format110 HP110/Plus
Expands formatting capabilities of MemoMaker: lets you format headers, footers, and page numbers; chain or merge documents; compensate for 'widow' and 'orphan' lines, and much more. *Personalized Software, PO Box 869, Fairfield, IA 52556 (515) 472-6330*

Formatter, The HP110/Plus
Sophisticated text formatter for large reports, program documentation, etc. Multi-line headers, footers, page numbers, table of contents, glossary capabilities, and more. *Personalized Software, PO Box 869, Fairfield, IA 52556 (515) 472-6330*

HPGraphics HP110
Used for making diagrams and drawings both for business and for fun. Features include font, shape generation, banner printing and more. *HPGraphics, 4510 Greencove Ct., Olympia, WA 98502*

Norton Utilities HP110/Plus
Allow you to recover deleted Portable files and organize your electronic and external disks. Also includes an extra 3.5' disk, additional utilities, and instructions for running utilities on the Portables and HP150. *Personalized Software, PO Box 869, Fairfield, IA 52556 (515) 472-6330*

PrinterTalk HP110/Plus
Expands formatting capabilities of MemoMaker: you can change type styles in the middle of a document, change number of copies and lines per page, do automatic page numbering, and more. *Personalized Software, PO Box 869, Fairfield, IA 52556 (515) 472-6330*

Private File HP110/Plus
Protects your confidential letters, documents, spreadsheets, programs, and data communication files by scrambling files so only you can unscramble them. *Personalized Software, PO Box 869, Fairfield, IA 52556 (515) 472-6330*

Sidewinder/Sidewinder + Utilities Plus
Allows you to print your spreadsheets (or any other text file) sideways. *Southern Software, 2853 Ramsey Drive, New Orleans, LA 70114 (504) 391-9465 • Personalized Software, PO Box 869, Fairfield, IA 52556 (515) 472-6330*

Word Processing

Hewlett Packard

MemoMaker Built-In HP110

MemoMaker/Time Mgt. 45504K Opt. 400 $195 Plus
Plug-in ROM Software
A powerful personal time manager featuring multiple date/time alarms, address/phone list with auto-dialer, archive/search functions, priority lists with carry-forward feature, and integrated MemoMaker word processor.

Microsoft® Word 45474D $375 HP110
A powerful word processing program, Microsoft Word offers extensive formatting capabilities and features like windowing, on-line help, and an undo command to help with mistakes.

Microsoft® Spell 45556D $ 80 HP110/Plus
A spelling correction program for use with Microsoft Word. Reduces writing effort by locating misspelled words, displaying the context in which they occurred and proposing alternative spellings.

Microsoft® Word 45549K Opt. 400 $375 Plus
Plug-in ROM Software
Now you can take Microsoft Word with your Portable Plus without a disk drive.

MultiMate™ 45554K $495 Plus
Plus-in ROM Software Opt. 400 A page-oriented word processor with powerful editing and formatting features.

Wordstar® 45400D $550 HP110
One of the most popular word processing packages available, WordStar features advanced text formatting,

editing and print functions, on-screen preview and simple integration with other systems.

Wordstar® Professional™ 45427D $550 HP110
This four-in-one package contains everything you want to meet your word processing needs, WordStar, CorrectStar, MailMerge, and StarIndex.

Wordstar® Professional™ Options 45429D $250 HP110
Add all of the WordStar Professional Options (CorrectStar, MailMerge, and StarIndex to your existing WordStar software package (requires WordStar version 3.3B or later).

Outside Vendor

Editor, The HP110/Plus
Includes many features not in MemoMaker, including search/replace, embedded printer codes, up to 255 columns per line. Also does word wrap, right justify. Uses less than 40K. Easy to learn and use. Versions for HP110, Plus, IBM PC, and HP150 all on master disk. *Personalized Software, PO Box 869, Fairfield, IA 52556 (515) 472-6330*

Footnote, Bibliography HP110/Plus
Bibliography compares citations in manuscript with entries in a master bibliography file; constructs a bibliography of entries cited. Footnote numbers and formats footnotes or endnotes in WordStar textfiles and numbers cross references. *Pro/Tem Software, 814 Tolman Dr, Stanford, CA 94305 415-497-1000*

Miniword HP110
Operates on both micro and mini computers. *Minisoft, Inc., 15600 Redmond Way, Redmond, WA 98052 800-682-0200*

Personal VI Plus
Provides a large subset of the UNIX vi editor, and attempts to mimic the command syntax and operation of the UNIX vi editor as closely as possible. *Oak Hill Software, 73 Hillyer Circle, Middletown, NJ 07748 201-671-1333*

Spellbinder & Spellbinder Scientific HP110
Powerful word processing and office automation, Spellbinder Scientific adds scientific symbols. *Lexisoft, Inc., PO Box 1950, Davis, CA 95617 916-758-3630*

WordPerfect Plus
Professional documents are turned out in record time. Features include a thesaurus, spelling dictionary and columns displayed side-by-side. *WordPerfect Corp., 288 West Center Street, Orem, UT 84057 801-224-4000 • Personalized Software, PO Box 869, Fairfield, IA 52556 (515) 472-6330*

Credits

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PLUS Notes

Pop Up Plus Productivity: SHELP

By David Hughes

WHO STOLE MY NOTEPAD?

The most frequently used office tools are often taken for granted. How many times have you needed a calculator to quickly check your figures in the middle of writing a proposal on your computer? How many times have you looked around the office for a scrap of paper or a missing memo pad to scribble down an important thought while talking on the telephone? These situations so often catch us while we're working on a project and can't afford the time to dump the current application.

HELP FROM SHELP

Shelp, a memory-resident application designed exclusively for the Portable Plus, offers a clever solution to the problem of the missing notepad and the misplaced calculator. Invoke Shelp by depressing **Ctrl Shift Extend Char** within any non-graphics program and the Shelp main menu instantly appears in the middle of your current application. Four of the most needed productivity tools are now at your fingertips:

— A four-function Calculator with ten memories, for quick math calculations;

— A Notepad for capturing those elusive thoughts that leave as quickly as they come;

— Keyboard Macros, useful for taking the drudgery out of repetitive typing of frequently used words or phrases. (This facility is perfect for storing medical or scientific terms, business names, legal phrases, or Lotus Macros);

— An OFF function, for when you want to shut off your computer but don't want to leave the current application.

A FRIENDLY COMPANION

Once you've installed Shelp, you'll probably never remove it from the Edisc, since it's so helpful. Shelp is a relatively small (12.5K) application, installed as a device driver to the MS-DOS operating system which resides in the Portable. It can be called from within any non- graphics program, such as Reflection 1/PC2622, MemoMaker, Time Manager, Lotus 1-2-3, The Editor, Pertmaster, and WordPerfect 4.1 (Shelp does not work with Microsoft Word, since Word operates in the graphics mode). The activities of the application currently in use are suspended until you return from Shelp.

Each of Shelp's four functions appears as a pop-up window when invoked from the main menu. It is possible to move any of the windows or the main menu anywhere on the screen, by depressing **Ctrl Extend Char** and the desired cursor key.

The Calculator has a provision for pasting the result of a calculation into the text of a document at the desired cursor location. The memories and accumulator are saved until they are explicitly cleared.

I consider the Notepad the most practical feature of this tiny software gem. It ends the frantic search for note paper while talking on the telephone. My only criticism is that the notepad isn't a little wider. The 17-column width is satisfactory; however, 25 columns or more would make more sense to me.

The Keyboard Macros facility is a helpful aid when you're creating text with MemoMaker or The Editor. Up to 26 macros may be defined; a sequence of up to 31 alphanumeric characters (including blanks) can be assigned to each one. Each macro may then be invoked by depressing **Ctrl Extend Char** and the key you've assigned to the macro.

Shelp's Keyboard Macros can be most helpful to Lotus users. You can define simple macros within Shelp usable from any spreadsheet. Every Lotus spreadsheet can access these Shelp macros, yet Edisc space is conserved since a copy of each macro does not have to be stored within each spreadsheet.

Unfortunately, Shelp does not let you mimic more complex Lotus macros containing cursor movement or {?}. However, every-day macros for saving and retrieving files, changing directories, setting print parameters, changing

column width, typing **@sum(**, and so forth can easily be created within Shelp.

The Shelp OFF function is an essential feature. For example, if you have only 512K of memory and are using WordPerfect in the resident mode (i.e., c:wp/r/d=a:), OFF is the only means of shutting off the Plus without losing WordPerfect or your document. (WordPerfect disables the display timeout). DOS users will enjoy not having to go to PAM to turn off the machine. In general you will find it convenient to be able turn off your Portable any time whether it is plugged in, or just to conserve the battery.

RECOMMENDATIONS

Shelp is a great product. It is a clean, easy-to-use application that can equip you to combat the tyranny of the urgent. Once installed, you'll wonder how you existed without it.

PRICING INFORMATION

Shelp is available on 3.5" or 5 1/4" disc from Personalized Software for $55.00 ($49.95 for Portable Paper subscribers). To order, use the postage-paid order form in the back of this issue, or send payment or credit card information to: *Personalized Software, P.O.Box 869, Fairfield, IA 52556, (515) 472-6330.*

Hewlett Packard Announces AdvanceMail For Plus

(The following information was taken from a Hewlett-Packard press release.)

AdvanceMail is a computer mailing application for the Portable Plus that provides you with off-line access to HPDeskManager, Hewlett-Packard's networked electronic mail system for the HP3000.

Its features include: interactive and batch mail transfer that lets you choose when mail is transferred—immediately or at a pre-set time; message filters that let you choose which messages (according to subject or sender) are transferred to your Plus; In Tray and Out Tray, where messages can be created and manipulated without linking to the 3000; and a Personal Mailroom on the 3000 that acts as your own sorting office for message storage before transfer to the Plus.

With AdvanceMail, your messages from HPDeskManager's In Tray are batched and sent to your Plus so that you can review them at the time and place of your choosing off-line from the minicomputer. You can also set up and specify a time for unattended file transfer to and from the 3000. MemoMaker connection can be specified as the AdvanceMail word processor, so MemoMaker users do not have to learn a new text editor.

Also, HPDesk Manager-style distribution lists, with full **to**, **from**, **cc**, and **bcc** addressing, are available from AdvanceMail.

AdvanceMail has been designed based on the needs of Portable computer users such as travelling professionals and salespersons. For example, these users might require a simple modem connection, GTE Telenet with X.25, and direct serial connection all in the same day. With AdvanceMail, it's easy to make the switch.

The Plus version of this product uses an interface consistent with AdvanceMail running on the Touchscreen, Vectra, and IBM PC, but also takes into account the expected environment for the Plus as well as its limited local backup and disk storage space.

Note that an installation of AdvanceMail for the Plus requires site-specific procedures that tailor communications to your company's needs. Once these procedures have been developed at the HP3000 site, they can then be installed into each Plus.

HP3000 System requirements are as follows: HP3000 running MPE V, version G.01.02 or later; HPDeskManager software, version A.03.00 or later; direct or modem dial-in connection to the Portable Plus; and ATP terminal interface (NOT ADCC terminal interfaces).

Portable Plus requirements are: a Plus with AdvanceMail and the Reflection 1 datacom program; a minimum of 384K memory and 188K main memory; direct or modem dial-in connection to a 3000; and an external disk drive (for set-up only). MemoMaker/Time Management ROM is required only if the user wants MemoMaker as the AdvanceMail word processor.

Ordering Information:—AdvanceMail (with Reflection 1 ROM), HP 82870A Opt. 400
— AdvanceMail System Administrator (without Reflection 1 ROM), HP 82870K Opt. 400
— Reflection 1 Terminal Emulation, HP 82863K Opt. 400
— Site-licensed AdvanceMail software, HP 82870S, Opt. 400
— Five sets of manuals, including Setting Up Advance Mail for the System Administrator, HP 82870T

Typically, an AdvanceMail installation may include Plus systems with different configurations. If you are:
— An existing Plus user with Reflection 1 installed, order 82879K Opt. 400
— A new user for AdvanceMail, order 82870A Opt. 400
— An AdvanceMail user who also wants terminal emulation, order 82870K Opt. 400 and 82863K Opt. 400
— A system administrator responsible for the installation of AdvanceMail, order 82870K Opt. 400 and 82863 Opt. 400.

HP and Gateway to Put Synergist on Plus

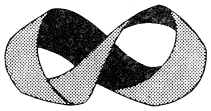
Hewlett Packard and Gateway Systems announced a development agreement to enhance and add proprietary features to Gateway's fourth-generation language, Synergist. Synergist provides a specialized programming environment to quickly and easily develop custom applications that integrate portable computers, PCs, and minicomputers. Applications developed using Synergist software allow data-processing functions to be split between a personal computer and a minicomputer, based on the most efficient use of processing power.

HP sales reps will be involved in pilot development systems using Synergist software solutions.

EPROM News

The latest news on Personalized Software providing EPROM backup service is good. It is possible to store more data at a more reasonable cost then we originally figured. Our plan at this point is to offer a backup service. That is, we will back up data or any purchased software from disk. If we back up a commercial product, we must have proof of purchase.

BLUE CHiP COMPUTER SYSTEMS



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CALCULATOR SPECIAL!

Model	List	Special!
HP-11C	56.00	48.00
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HP-15C	99.00	80.00
HP-16C	120.00	89.00
HP-41CV	175.00	135.00
HP-41CX	249.00	190.00
HP-71B	525.00	394.00

CALL

1-800-4HP-BLUE Extension 501 In Continental U.S.

1-800-325-9868 Extension 501 In California

Please rush me Blue Chip Computer System's free mail order catalog *IMMEDIATELY!*

Our Ad was designed using "Desktop Publisher" by Lexisoft on an HP LaserJet Plus. This Word Processing and Page Composition program is now available at Blue Chip.

It still isn't completely clear how this development will affect our own products. We will continue to make our software available on disk; it may also be possible to purchase an EPROM, either alone or as a backup. But no matter how we decide to make our software available, we will structure the program so that purchasers of our software will at the very least be at no financial disadvantage if they later want to put that software in EPROM.

Again, this is our current thinking. Hopefully, we will have an announcement by next issue of *The Portable Paper*. If you can't wait, you might try Louren Hansman at *Totalogic Systems LTD, 156 D Valley Stream Dr., Nepean, Ontario K2H 9C6 Canada*; he should be able to put your software on a chip for you.

WordPerfect In ROM May Be Some Time Coming

M. Daniel Lunt, VP of Marketing for WordPerfect Corporation, replied to *The Portable Paper* contributing editor David Hughes' query about WordPerfect in ROM. Lunt said in a letter dated Aug 14, 1986, 'WordPerfect Corporation is aware of the desirability of WordPerfect's main program in ROM, and it is a possibility we are considering depending on the level of demand we have for this request. However, in analyzing this prospect our programmers have encountered difficulties due to the way WP.EXE overwrites portions of executable code space after initial startup. But as I mentioned, it is an option we are considering.'

WordPerfect is the best selling IBM PC word processor and is available on 3 1/2" disk for the Portable Plus. The product retails for $495; subscribers can order it from *Personalized Software, PO Box 869, Fairfield, IA 52556, (515) 472-6330* for $299. *WordPerfect Corporation* can be contacted at *288 West Center St., Orem, Utah 84057, (801) 227-4000.*

Through the Looking Glass

By Ed Keefe

"'Twas brillig and the slithy toves Did gyre and gimble in the wabe..."—JABBERWOCKY by Lewis Carroll

One of the things that makes the world of computing so befuddling is the flood of new words that seems to come with the territory. The computing field is rife with jargon. Some have even called this overuse of buzzwords and jargon 'compubabble.' Compubabble makes as much sense to computer novices as does the Lewis Carroll's Jabberwocky.

The Role of Jargon

There seems to be no easy way to circumvent the use of jargon. Jargon performs the useful function of communicating ideas in the fewest possible words. Jargon helps insiders communicate more easily even though it may keep outsiders at arms' length.

I have seen the puzzled look on students' faces when they first hear the words 'bit' and 'byte.' The puzzled expression often changes to a knowing look when I explain that a bit is like a dit or a dah in Morse code. A byte is a

series of eight dits and dahs; it is just another name for a letter from the alphabet or a number.

Associating a bit with a dit or dah is easy to do in a classroom. Making parenthetical remarks is hard to do in the pages of a journal such as *The Portable Paper*. There are not enough pages in any journal to elaborate on all the jargon.

Jargon for the HP Portables

However, Hal Goldstein, the publisher, asked me to share with you the meanings of some of the jargon from the lexicon of Portable computing.

To get started, I tried putting myself in the frame of mind of one of my beginning computer students. Then I scanned the first six issues of *The Portable Paper*. I discovered more than 275 words that might cause newcomers to scratch their heads in wonderment. Sure, I found all the usual jargon, such as bits and bytes. But I also found a lot of words that are peculiar to the world of HP Portable computing.

A Couple of Examples

For example, the word 'alarm' is peculiar to the HP 110 and Portable Plus computers. HP has given its laptops the ability to maintain an appointment calendar, which is set up by either using Time Manager or creating a **pam.alm** file (see user manual). When an appointment comes due, the computer will automatically beep or sound an alarm. That's one description of an alarm. However, an equally valid definition of alarm for the Portable user might be the following: 'the feeling you get whenever your computer gives you the shadowy message that it can no longer read drive A and you must press the **f1** key to reformat your internal disk (and send 8 hours work into oblivion).'

Or take the word 'fragmentation.' Fragmentation is a word that describes a problem with HP Portables. It simply means that the files on your electronic disk are no longer neatly arranged in separate locations. Due to erasing old files and creating new ones, the files have become disjointed.

For those who have ever tried to increase the size of memory or electronic disk and have not been able to do so, fragmentation is a very frustrating problem. Fragmentation leaves a lot of holes on the electronic disk. The computer doesn't know that these blank spaces on the disk are reclaimable. It will try to prevent them from being destroyed.

How to Free Up Disk Space

To see how badly your electronic disk is fragmented, just type in the command **chkdsk *.*** on the PAM command line or at the DOS **A:>** prompt and press **Return**. The computer will use a different word for fragmented, namely, non-contiguous. And if you find that your electronic disk contains mostly non-contiguous files, you can use the **pack.com** program to free up the holes on the electronic disk. Then you will be able to alter the size of your computer's memory, even though the files may be more non-contiguous than before.

But I Digressed...

In writing this column, I took a side trip and designed an automated Glossary that would let me keep track of all the buzz words and then fill in the definitions as I developed them.

I have asked Hal to include this program on the Disk-of-the-Month (Portable Paper On Disk) from Personalized Software. The glossary program is a modified version of the sample program from the Turbo Pascal Database Toolbox. It will let you look at, modify, or add to almost 100 different words from the field of microcomputing. I promise to go into more detail about the program in the next issue of the Portable Paper. Beyond that I will show you how you can design your own record management system on the HP 110 or Portable Plus computer with the **edlin** and **find** programs. If you're in the market for a database program, you may want to hold off buying one until you have a chance to play with your own record management system. It may be all that you'll ever need.

Back To Jargon

Here, without further delay, are some of the words commonly associated with an uncommon computer. The words are in alphabetical order, courtesy of the built-in sorting routine of the automated Glossary program.

BACKUP

This term often refers to a copy of the files that you use on your computer. It is a good practice to make backups of all your important documents and data as well as making backup copies of your programs. (Some people will tell you 'Happy are the faint-hearted for they hath made backups.') Some programs will make backups for you. These backup files usually end with the three letters **.bak**. Backing up your files from the electronic disk of the HP Portables is a MUST, especially before you try out any new piece of software. New software may sometimes corrupt the contents of the electronic disk.

BATCH FILE

This is a program consisting of one or more DOS commands put into a file whose filename ends with **.bat**. The operating system will respond to your entering the name of the batch file by running this batch file 'program'. Your computer will execute each of the commands in the batch file in sequence, as if you had typed them into the computer, thus saving you from having to retype a frequently used set or sequence of commands.

There is one problem with batch files: they are slow when executed from the 9114 disk drive. You can speed them up by moving them to the electronic disk or by moving the batch files to the head of the directory on an external disk.

This last bit of advice is easy to do only if you have the Norton Utility program **ds**. Simply rename your favorite batch file to **al.bat** and then use the **ds.com** program to sort the directory on the disk alphabetically. Finally, rename your batch file whatever you like.

A sample batch file is included in the definition of **con** below.

BYTE

In computer jargon, a 'byte' is the same as 8 bits (binary digits). The term 'byte' often means the same thing as a character. Thus the 4 letter word 'byte' has 4 characters or 4 bytes worth of information in it. A computer with 272 Kilobytes of random access memory would be able to hold 272 * 1024 characters of information (* is computerese for multiplication). A Kilo, in computerese, is 1024, or 2 raised to the 10th power. 272K bytes may seem like a lot, but after using the HP110, most users agree that it

doesn't seem that way. All users want 130% more memory than they currently have.

BUG

A bug is an error in a program. Reportedly, the word bug became part of computer jargon when Adm. Grace Hopper, the author of the COBOL computer language, found the first real bug in a computer. As she tells it, she was working on the Mark II computer when the computer died. The Mark II was a computer made up of telephone relay switches instead of transistors. One of her co-workers found a moth trapped in a relay and beaten to death. They extracted the bug and taped it in a log book and labelled it 'the first actual computer bug.' The bug is still kept in the Navy's computer museum.

COM FILES

These are files that end with the 3-letter extension **.com**. The abbreviation **com** stands for COMmand. A command file consists of binary code that will turn the computer into a word processor, or a spreadsheet machine, etc. You may execute or run **com** files. You may copy them and rename them. However, in renaming such files, do not leave off the **.com**. If you use the command **type <filename>**, where filename is the name of a **com** file, your screen will show you a strange lot of characters. The computer is trying its best to display binary code...and making a mess of it.

CON

con is the name of a file in the DOS operating system. It is a physical file known as the CONsole (which is the same as the display or screen). Just as you can send information to a disk file or get info from the disk file, so can you copy a file to the CONsole. You can do this with the command **copy <filename> con.**

A more valuable use of **con** is for copying information from the console to a disk file with the command **copy con <filename>**. For example, assume you have the Norton Utility **ds**, which sorts and lists directory files. Type **copy con look.bat** and **Return** from DOS. Now type the following two lines:

ds s
dir

Then type **CTRL z**, and you have created a batch file that sorts and lists files by size.

To invoke this batch file, just type **look**; you will get a listing of files with the largest ones at the end. Being able to view the largest files is invaluable when you need to delete files and free up disk space.

CPU

This stands for Central Processing Unit. In the 1950's, CPU referred to an entire, large computer. Later, the term came to mean just that part of a large computer than performed all the arithmetic and control functions involved in computing. In most large computers the CPU also includes the main memory of the computer. In microcomputers the term CPU refers to the microprocessor that is the brain of the computer. In the HP110 and Plus, the CPU is a microprocessor called the 80C86. It is the low powered version of the CPU in some IBM PC clones.

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DOS
Disk Operating System, as in MS-DOS. This is a collection of programs that will let you manipulate information on the disks of your computer. However, MS-DOS is more than just a disk management program. MS-DOS also includes programs that will let the CPU talk with the keyboard and the display and manage the memory of the computer.

EDISC
Electronic disk or RAM disk, as it is sometimes called, is not really a disk at all but rather is random access memory that has been programmed to behave like a disk. It will maintain a directory of the files kept on the disk. Most Ediscs on desktop computers are volatile. That means they will lose information when the power is shut off. In the HP Portables, power is always flowing to the memory of the computer, so the information on the Edisc is retained. This is true even if the display is shut off or the machine times out.

ESCAPE
This refers to: 1) the ESC key on the keyboard, and 2) a particular character (ASCII character #27) which HP printers typically require to for instructions. For example, sending the characters **Esc&k2S** from your computer to a ThinkJet printer causes the printer to print in compressed mode. Such escape codes are not printed or displayed, rather the computer or printer performs the operation demanded by the code that follows the Escape character.

HP-IL
HP-IL, which stands for Hewlett Packard Interface Loop, is a protocol (i.e., an agreed-upon set of conventions) that creates a loop for devices that connect peripherals (printer, disk drive, etc.) to computers. It is exclusive to the HP handheld computers and laptops such as the 110. Each peripheral device must contain an HP-IL integrated circuit. This HP-IL IC will process signals coming from a computer, pick out those signals addressed to it and pass on signals for other peripherals on the HP-IL.

HIDDEN
This term refers to a file on a magnetic disk whose name does not appear in the directory listing. To see the names of some hidden files on the B drive of the HP110 or Plus, use the command **chkdsk b: /v**.

I/O
This is an abbreviation of Input and/or Output. It usually refers to a device, as in I/O device, which is a piece of equipment that can be connected to the computer, e.g., a printer (output device) or a keyboard (input device).

MS-DOS
See 'DOS' above. MS-DOS is a set of programs that teaches your computer how to use the disk drive, keyboard and display. MicroSoft Corp. wrote the Disk Operating System. MicroSoft will sometimes modify the operating system programs for a particular company. Thus, MicroSoft has written a special version of the programs for the IBM PC for which the label PC-DOS has become popular. Many programs written to run in a PC-DOS controlled machine will not work in a computer with a different version of MS-DOS.

MODEM
In computer jargon, modem refers to the equipment used to communicate between computers over the phone line. In general, it is a device which MOdulates or changes the frequency of a tone in response to a signal and/or DEModulates the altered tone to recapture the imbedded information. The human voice is a modulator. The human ear is a demodulator. The human brain is a very complex modem: much more complex than the simple modems used in computers. Computer modems modulate a single tone called a carrier wave in accordance with incoming digital signals and then demodulate the altered tone to recapture the digital signals.

RAM
Random Access Memory, often called the main memory of the computer. It consists of thousands of tiny transistors that get turned on and off and thereby can be used to hold information in binary form. The computer keeps track of what is stored in this memory and thus can retrieve the contents of a memory location just by referring to the location by a number. This number is often called an address since its use is very similar to the use of numbers on mailboxes.

ROM
Read Only Memory. So called because such memory can't be recorded on. Typically, Read Only Memory chips are created by a chip manufacturer and contain programs or data. This type of memory device can not be altered by the user nor can the contents of the chip be lost when the electrical power to the computer is interrupted. It is almost as if the contents of the chip are 'etched in silicon.'

RESET
This usually means to restart a computer from the initial turn-on state. This is sometimes tricky to do on the HP Portables since the computer is not able to be turned completely off. If the computer crashes and the keyboard locks up, using the **CTRL Shift Break** keys may get the computer to reset itself. If that doesn't work, try holding down the contrast key until the computer shuts off. If that fails to get you out of trouble, you may have to remove the back panel of the computer and press the little red button.

SOFTKEY
Also called 'function key.' On the HP series 100 computers these keys are labelled **f1** through **f8**, **Menu** and **User/System**. These keys are 'soft' in the sense that their meaning is not as 'hard and fast' as the alpha and number keys. You may change the meaning of the soft keys by writing a small escape sequence in a text file. You may then use the DOS command **type [name of softkey file]** to redefine the meaning of the softkey. For example, to define the **f1** key to activate the **dir** command, use the escape sequence **[ESC]&kf0alk5d3L dirdir**.

USER
Anyone who applies computers to their work or entertainment. Users are sometimes categorized as 'novices' (someone who has just seen their first computer) to 'power users' (those who use their computers as more than a glorified typewriter or calculator).

UTILITY
Refers to a class of computer programs that, supposedly, are 'useful' to have when working with a computer. The most famous collection of such utility programs is the Norton Utilities which will let you do such things as recover disk files that were unintentionally deleted or will let you sort the directory on a disk. Various users groups and distributors of software often maintain a collection of utility programs for a particular kind of computer. Personalized Software distributes both the Norton Utilities and another disk full of such programs.

WORD WRAP
You encounter this phenomenon in such computer programs as word processors. The computer will let you type in a whole paragraph without ever hitting the **Return** key at the end of each line of print. The program will automatically take words that extend beyond the preset right margin and put them at the beginning of the next line of text.

WORKAROUND
Often, when a program contains some bugs and the authors of the program do not have an easy way to patch the program so that it will work correctly, they will offer a method of getting the task done that will let the user avoid the bugs in the program. This method of avoiding or recovering from a bug in a program is known as a 'workaround solution.' The Terminal program on the HP110 has several bugs and workarounds described in issue 4.

The Portable Paper is the best source for workarounds for these bugs. Once you have learned some of the workarounds from this source, you will be ready to tap into the HP Forum on CompuServe and find even more workarounds for the Terminal program.

The Last Word

PORTING
Porting is a term borrowed from the world of canoeing. In the context of computer jargon, the term can be applied to carrying a portable computer for eventual use or merely for maintaining a look of professionalism. The HP Portables, although somewhat maligned in the computer press, have the best track record for rugged porting. They have been designed to withstand the rigors of travel.

This column is not the last word, however, in computer jargon. There are many more buzz words in the lexicon of computer users. I hope that the few words listed here will help you sound more knowledgeable as you go about your business of computing and porting.
Until next time...Happy Porting!
[Ed - You may have found that some of your not-so-favorite words were missing from this glossary. Here are some suggested places to turn: The Portable Paper *issue 2, page 5, which provides an introduction to DOS vocabulary; the glossary of any introductory computer book such as PC-DOS by Peter Norton or PC-DOS/MS-DOS by Alan Boyd; your user manual.*

Looking Glass writer Ed Keefe is an author, programmer, and Computer Science instructor. He is the president of The FastAid Co., 314 SW Logan, Ankeny, IA 50021. Ed's CompuServe I.D. is 73277,1064.]

110 WIZARDRY

by The Wizard, Cliff Looyenga

Configuration Changes from DOS

To work from PAM or to work from DOS? This is a question that I and many others have thought about. PAM has the advantages of easy application selection and access to configurations. PAM's main disadvantage, in my opinion, is lack of speed, which results in always having to wait around for the **Reread Discs**. But then again waiting around for a computer is a pet peeve of mine. PAM's speed becomes tolerable, however, if you set external disks to **None** in PAM **System Config**, but then you can't access your C drive.

If you decide you want to work from DOS, you can get your Portable to bypass PAM and boot directly into DOS by creating a file called **config.sys** with the following line in it:
shell = b:\bin\command.com b:\bin /p
If you create an **autoexec.bat** file, you won't get asked for the time and date.

The problem still remains of how to alter the System Configuration menus without going into PAM. The obvious solution would be to write a program to do this alteration, but there are two main problems in creating such a program. First, documentation of where PAM stores the configuration information is virtually nonexistent; and second, some of the configuration values require a hard reset if they are changed.

With the help of HP Corvallis, I managed to dig up some documentation about where PAM stores the configuration for both Portables. The configuration is stored slightly different for each Portable. On the HP110, the configuration information is stored in sector 0; on the Portable Plus, it is stored in segment 40 (hex). The address within the sector or segment of each of the configuration values is shown below.

Plus	110	Description
0B60	01C8	EDISC size. Number of 4k blocks above 64k on P+.
0B61	01C9	Number of external drives.
0B62	01CA	Disk write verify. 0=ON
0B63	01CB	Power Save Mode. 0=On.
0B64	01CC	Display timeout.
0B65	01CD	Cursor type. 0=underscore.
0B66	01CE	Console mode. 0=HP
	01CF	Console Font.
0B67	01D0	Beep. 0=long.
0B68	01D1	Plotter Interface. 0..30=hpib, 31=hpil, 32=serial 33=82164A.
0B69	01D2	Printer type. 0=Alpah/Graphics,1=Graph, 2=Alpha
0B6A	01D3	Printer interface (same as plotter).
0B6B	01D4	Printer pitch. 0=None 1=norm 2=Expanded 3=Compressed 4=expandedcompressed.
0B6C	01D5	Printer Spacing. 0=No config.1=6 lpi, 2=8 lpi.
0B6D	01D6	Printer Skip Perf. 0=No config. 1=On. 2=Off.
		Datacom Config (serial)
	01D7	Serial Port. 0=Modem
0B6E	01D8	Baud Rate. 2=110 5=300 7=1200 13=9600
0B6F	01D9	Word Length. 0=7bit 1=8 bit
0B70	01DA	Stop bits. 0=1 stop 1=2 stop
0B71	01DB	Parity. 0=Even, 1=Odd, 2=None.
0B72	01DC	XON/XOFF pacing. 0=on
0B73	01DD	CTS 0=IGNORE

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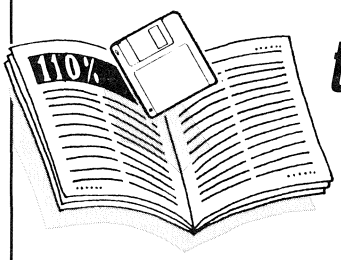

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```
0B74    01DE    DSR 0=IGNORE
0B75    01DF    DCD 0=IGNORE
                Datacom Config (82164A)
0B76            0=Power off, 1=Power on.
0B77    01E0    Baud Rate. 2=110 5=300 7=1200 13=9600
0B78    01E1    Word Length. 0=7bit 1=8 bit
0B79    01E2    Stop bits. 0=1 stop 1=2 stop
0B7A    01E3    Parity. 0=Even, 1=Odd, 2=None.
0B7B    01E4    XON/XOFF pacing. 0=on
0B7C    01E5    CTS 0=IGNORE
0B7D    01E6    DSR 0=IGNORE
0B7E    01E7    DCD 0=IGNORE
        Datacom Config (Modem Portable plus only)
0B80            0=Power off, 1=Power on.
0B81            Baud Rate. 2=110 5=300 7=1200 13=9600
0B82            Word Length. 0=7bit 1=8 bit
0B83            Stop bits. 0=1 stop 1=2 stop
0B84            Parity. 0=Even, 1=Odd, 2=None.
0B85            XON/XOFF pacing. 0=on
0B86            CTS 0=IGNORE
0B87            DSR 0=IGNORE
0B88            DCD 0=IGNORE
0B89            Aux 0=serial, 1=82164, 2=Modern
```

HP110 users need only to be able to read and write sector 0. This I figured would be easy, all I have to do is use the **intr** function of Turbo Pascal to call interrupt $25 (absolute sector read). WRONG! I tried that and it blew away my whole Edisc (including this article). It just so happens that the HP110 BIOS pushes the flags on the stack. This causes an extra byte to be on the stack when Turbo gets in control again, and Turbo is not pleased. Anyway, I managed to figure out a routine that works. Here it is.

(Note this routine is for the Portable only; Portable PLUS users can declare a variable to be at the absolute location of the data. **var x:array[1..512] of Byte Absolute $40: $B60)**

```
type sector = array[1..512] of byte;
var buff : sector;
        {procedure to read or write sector zero off the disk }
procedure disk_io(readsector:boolean;var buffer:sector);
  type registers = record
        ax,bx,cx,dx,bp,si,di,ds,es,flags : integer;
      end;
var   regpac          : registers;
begin
with regpac do begin
      ax:=0;                          { disk to read sector from }
      bx:=ofs(buffer);                  { disk transfer address }
      ds:=seg(buffer);
      cx:=1;                        { number of sectors to read }
      dx:=0;                                { sector to read }
end;
inline($54/$55/$16/$1E);                      { save registers }
if readsector then intr($25,regpac)              { get sector }
else intr($26,regpac);                      { or write sector }
inline($9D/$1F/$17/$5D/$5C);                { restore registers }
end;
```

You now have all the information you need to put together a program to control all the configurations from DOS. I'm not sure which values require a hard reset to take effect. I experimented with the cursor underline/box and it DID require a hard reset. I think if you experiment around you can figure it out; just remember to BACK UP YOUR EDISC.

The Wizard Responds

Q If I use the LPRINT statement in BASIC and the printer is not connected to my Portable Plus, it hangs my program. Is there any way to determine from BASIC if I have a printer connected or not?

Gerald Watry, Bloomington, MN

A I don't think there is a way to do it from BASIC unless you try to interface BASIC to assembly language, but then again I don't use BASIC. However, I can offer you another idea. How about creating a batch file to run your BASIC application that would first run a program to determine if there is a printer available. For example:

```
echo off
chkprn
basic myappl
```

The program **chkprn** would build a 'flag' file if a printer exists. When your basic application starts up, the first thing it would do is test for the existence of this file. If the file exists, you know there is a printer available. Below is a simple little Turbo Pascal program to do this:

```
program test;
  type regpac = record
        ax,bx,cx,dx,bp,si,di,ds,es,flags:integer;
```

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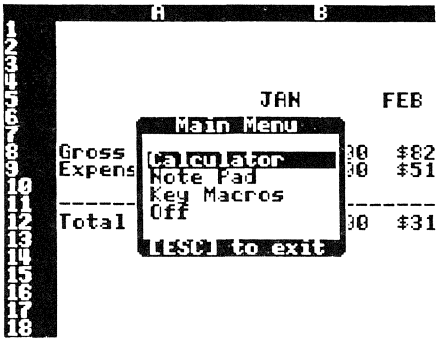
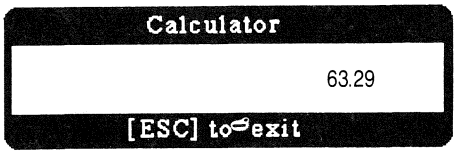
Press [Ctrl] [Shift] [Extend char] and up pops the Shelp menu:

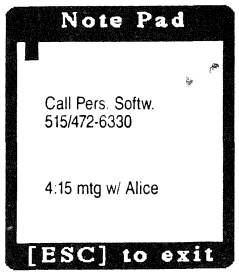


Choose **Calculator** and get a 4-function calculator that works just like a pocket calculator with memory. You can:
- save results in ten different storage registers and retrieve them again with two quick keystrokes
- "paste" results at the cursor location in whatever application you were using when you invoked Shelp.



Choose **Notepad** and a "scratch pad" pops up on your screen. Type whatever you want into it, exit to your application, and then recall the notepad whenever you want.

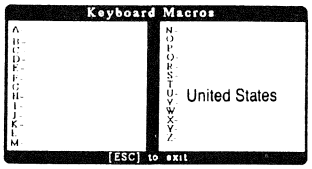
No more having to scribble notes on paper to remind you of phone numbers, things to do, or bright ideas!



Choose **Key Macros** and you can assign "strips" of up to 31 typewriter characters to any of the 26 letters in the alphabet. This saves you having to type the same phrase over and over again.

Example: If you type "United States" a lot, you could assign the entire phrase to the "U" key. Just move the cursor to "U:" in the Keyboard Macros menu and type "United States."

To recall "United States," simply press [Ctrl] [Extend char], then [U]. Presto—"United States" appears at the cursor location in your application!



Choose **Off** and your Portable Plus turns off without having to return to P.A.M., and without having to save your application file. When you turn your computer back on, you'll be in the same place in the same application, with no data lost.

All the capabilities of IBM-PC programs like Borland's SideKick and SuperKey? Certainly not, but Shelp's the only such program for the Portable Plus. It's a clean, easy-to-use, and highly useful helper you'll want at your fingertips always.

Shelp runs on the Portable Plus only. It works with Time-Manager, MemoMaker, Reflection 1, Lotus, and any other non-graphics program. (Shelp does not run with MS Word.)

Shelp was written by Randy Salo, the former HP engineer who authored MemoMaker on the original HP Portable.

$55 ***($49.95 for Portable Paper subscribers)***

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SideKick and SuperKey are registered trademarks of Borland International, Inc.


```
        end;
  var reg : regpac;
      afil: text;
begin
  intr($11,reg);                          { call equipment check }
  if (reg.ax and $C000)<>0 then begin     { printer exists }
      assign(afil,'prnexist');
      rewrite(afil);
      close(afil);
  end;
end.
```

Q How can I take data output by a Turbo Pascal program and bring it into Lotus for graphing?
Ingemar Odenbrand, Sweden

A The easiest way of doing this is to use the import function of Lotus. If you can get your data into a file where each number is on a different line and/or separated by a space on the same line you can import it directly into Lotus. To do this, just put your cursor in the cell where you want Lotus to load the data and type **/FIN** (file import numbers). Your file name must have a suffix of **.prn**. Lotus will put each value in a cell and each line in the datafile represents a row in Lotus. If you want to include text as well as values, the text must be in quotes.

Cliff Looyenga provides technical support for HP PC's and HP3000's, and in those circles he is known as 'The Wizard'. He has developed a number of Portable and Portable PLUS utilities. You can reach Cliff, via CompuServe, ID: 75106,2130.

(110% continued)

closing the deal and going home. Instead you can use that 15 minutes to compute interest rates, try different options, or write a memo.

My reading taught me to keep financing, trade-in, and the price of the new car separate. If you choose to finance through the dealer, the 1-2-3's financial functions are most useful to check the dealer's figures. Once you agree on price, trade-in, and financing, you can use Lotus to make sure that when the figures are all mixed together and sales tax gets added, nothing extra slips in. Your Portable gives you both the computing and psychological power to help prevent paying more at closing time then you should.

When I was in my salesman's office, other salesman would steal a glance at me working at my Portable while I dealt with their colleague. I ended up making the deal I wanted, and I believe The Portable was a great help.

I recommend having The Portable at hand during any major business negotiation, especially when you are in the other person's territory.

Scrolling Trick

T. Wesley Erickson of San Luis Rey, CA writes about a simple trick that many of us might overlook. Say you do a DOS **dir** to get a directory listing or use the DOS **type** command to examine a file. Almost always, the top of the directory or file scrolls off the screen. Using the **up arrow**, **Prev**, or **home** key will uncover up to 47 lines of the listing with HP110 and up to 61 lines of Portable Plus. When you get up to the top and you want to clear the display, enter the DOS **cls** command.

Faster Diskcopy

One of the most frustrating acts for a Portable user is backing up 720K floppy disks using one disk drive. The inserting and removing disks during the DOS **diskcopy** command

seems an endless task that requires just enough attention to prevent you from doing any other useful work. The best albeit expensive solution is to pick up a second HP9114.

Here is a tip from Looking Glass author Ed Keefe to speed up things a bit whether you have one or two external drives. Before doing the copy, go into **System Config** from PAM and set **Memory** to the maximum. (You may even want to copy off a few files first and use **pack** before setting **Memory**.)

The **diskcopy** still takes an interminable amount of time, but it is faster, and you'll have to switch disks less often. Apparently **diskcopy** uses whatever internal memory is available to do its thing.

Portables, HPLink Card, and Hard Disk

From talking to subscribers, I find there is still a good bit of confusion about using the HP110 or Portable PLUS with a hard disk system. Hopefully, this will clear things up.

Here is an explanation from Corvallis (see the last paragraph of this section for a summary):

'The Portable Plus, like the HP110, runs MSDOS 2.11, which is inherently limited to 4085 clusters on a disk, about 16 megabytes on most disks. However, the two products behave differently when you attempt to access a larger hard disk that has been formatted by MS-DOS 3.0. Such hard disks are encountered (for example) when talking to an IBM AT over Portable-Desktop Link.

'When the HP110 accesses a hard disk, it assumes the disk is MS-DOS 2.xx format. Reading a larger disk will give unpredictable results because garbage is returned. Writing to a larger hard disk will destroy some, if not all, of the data on the disk. DO NOT ATTEMPT TO ACCESS A LARGE HARD DISK FORMATTED BY MS-DOS 3.0 (or higher) FROM THE HP110!'

'The Portable Plus always checks the size of the disk before attempting any file operations. If the disk size is to large to be valid under MS-DOS 2.11, the operation will return a **NON-DOS DISK ERROR** message. There is no danger of destroying the disk; the computer simply refuses to talk to it.

'When either Portable is connected to an MS-DOS 3.xx machine over Portable-Desktop Link, the recommended procedure is set up the Desktop as the controller (by installing **hpil.sys**) on the desktop and running **hplink** on the Portable) and do all file operations from the desktop. This allows files to be transferred in or out of the Portable's Edisc, and because the desktop handles access to its own disks, the disk is fully accessible.

'Additionally, note that a 20-megabyte (9133H or 9134H) drive formatted by either Portable will only have 16 megabytes of usable space. To get a full 19- megabyte capacity, format the disk with an HP150C, then all the disk is usable by either Portable.'

In summary, never run **hplink** on the desktop (e.g., IBM AT) if the desktop contains greater than a 10-megabyte hard disk. If you do and you have a Portable, you'll destroy the contents of the disk with a file operation such as **copy**; if you have a Portable Plus, you won't be able to read the disk. However, you lose nothing by letting the desktop computer rather than The Portable be the controller. Do this by typing **hplink** from DOS or PAM on the Portable. The desktop must have a file named **config.sys** with the line **device = hpil.sys** and the file **hpil.sys** on the hard disk (root directory if no **path** command used). Now the Portable's Edisc becomes drive D to the desktop (in most configurations), and you are ready to do any file transfer.

HP110/HP110+ USER GROUPS

Thanks to so many of you who are willing to help organize local users groups. Users groups give an opportunity to share tips, answer questions, discuss other products, trade free software and Lotus templates, and meet other professionals.

As you will notice some areas have more than one contact person and some major areas have none. If you are in a "missing" area and would like to organize a group, contact us. If your groups combine also tell us. We will publish this column each issue, keeping it up to date. Write *Local Users Groups, Box 869, Fairfield, IA, 515-472-6330.*

California, *Southern California* We meet 2nd Thur 7-9 at HP sales office, 5161 Lankershim Blvd, North Hollywood. Request PORTOVEC Notes Newsletter, Dave Mark, 818-794-4969.
Los Angeles County, Southern California, Call during day. Blue Chip Computer System. 9701 West Pico Blvd, Los Angeles. Elmar M. Gomez 213-553-3393.
San Diego, Stephen L. Eyre. 454-0555.
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Colorado, *Colorado Springs*, Dan Ritt, 303-528-8080.
Denver, Call Bob Pressey, 303-777-0326
Georgia, *Atlanta,* Call Brian Walsh D:404-394-2500 E: 404-399-6842
Hawaii, *Honolulu,* Rodney Y. Fukuya if interested, 808-945-3111.
Indiana, *Indianapolis,* Bob Glass, 317-638-2326.
Iowa, *Mid Iowa*, Ed Keefe D: 515-964-6644 E: 515-964-7064.
Southeast Iowa, Hal Goldstein 515-472-6330
Minnesota *Minneapolis,* John Ferman (612) 822-1372 (Meet 2nd Wed. 7:00 at HP on Larpenteur Ave.)
Maine, *Yarmouth,* Every last Tue 6:30, US Route one, Yarmouth, ME 04096, 846-5497
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Virginia, *Central Virginia*, Steve Cochran. D: 804-528-8491, E: 804-348-5289.
Washington, *Eastern Washington, Northern Idaho, Western Montana, and possibly Western Washington* , Bob Sandberg. 509-466-4999.
Eastern Washington, Stephen S. Warner. D: 509-534-1588, E: 509-535-3322.
Washington D.C., *Greater Washington D.C. Area,* 8:00 PM, Third Monday of Each Month, Ballston Tower #1, 800 N. Quincy St., Room 519. Call to confirm and to say, Hi. William F. Cross. D:202-696-4112, E:703-845-9508.
Wisconsin, *Racine,* Tom Nelson, 414-6770.
Australia, 8 Avoca St, S. Yarra, Victoria, Australia. Nigel S. Ball. 03-267-8344.
England, Trafalgar House, Grenville Place, Mill Hill, London, NW7 3SA England. Tim Cullis.
(01) 959 4359.
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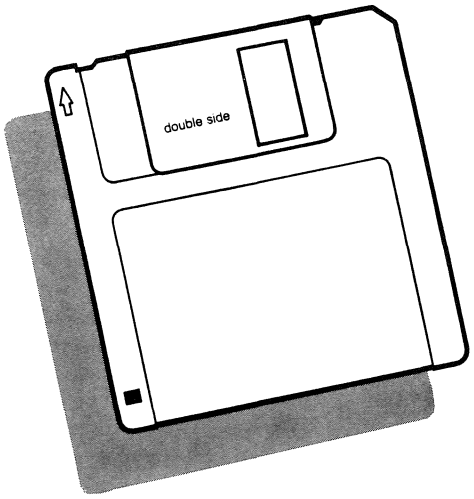
Spain, Club de usarios HP 110, Pont Reyes S.A., A la atencion de D. Enrique Serra, Ronda Universidad, 15, 08007, Espana.



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	SideWinder (p. 4)		69.95	59.95		
	SideWinder + Utilities (p. 4)		79.95	69.95		
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Gets you started on the Electronic Information Service, CompuServe (which includes the HP forum). Includes $25 worth of free time, complete Users Guide, permanent user ID number and preliminary password, and CompuServe's monthly magazine, Online Today.

DOS Tools Portable Utilties Disk, Vol 1
Well over 50 excellent public domain programs that enhance DOS, all tested on The Portables. Documentation has been rewritten for clarity and ease of use, and includes examples, index, and table of contents.

The Editor/The Formatter (separate packages)
The Editor: Many features not in MemoMaker, including search/replace, embedded printer codes, up to 255 columns per line. Also does word wrap, right justify. Easy to learn and use. Uses less than 40K. Versions for HP110, Plus, IBM PC, HP150 all on master disk.
The Formatter: Sophisticated text formatter for large reports, program documentation, etc. Multi-line headers, footers, page numbers, table of contents, glossary capabilities, and mroe. Works with almost all printers. (Note: Documentation is in draft form; no technical support available.)

HP9114 Empowerer
A hardware product that prevents the HP9114 disk drive from running out of juice in the middle of your work. Plug in empowerer to your HP9114 and a normal wall outlet, and you can run your HP9114 forever.

101 Macros for Lotus 1-2-3
Useful as themselves and also as learning tools for novices and experts alike, these macros include: recalculating ranges, double spacing spreadsheet prior to printout, hiding notes next to data cells, addressing form letters, and printing labels automatically.

The Norton Utilities —Customized For The Portables
Allow you to recover deleted Portable files and organize your electronic and external disks. Peter Norton has authorized Personalized Software to include an extra 3½" disk (formerly available only on 5¼" disk) with each package sold. The disk includes The Norton Utilities, additional utilities, and instructions for running The Norton Utilities on the Portables and the HP150.

The Portable Paper
The only publication exclusively for Portable and Portable Plus users.

Portable Paper on Disk
One disk with each 1987 Portable Paper issue. Ready-to-use DOS batch files, Lotus macros, Pascal program listings, Reflection command files, etc.—plus explanatory text—as listed in The Portable Paper. Saves having to type listings by hand. Also on each disk: utility programs, public domain software, and extras. All of 1986 issues come on one disk.

1987 Portable Paper Subscriber's Disk
Software on disk includes (1) DISKPACK, a pack utility that can work with subdirectories, usable with Edisc, external disks, hard disks. Commercial equivalent sells for $50. (2) Time Manager's Calendar Utility. Prints WEEK-AT-A-GLANCE calendar from Time Manger's appointments list to the ThinkJet. (3) ThinkJet Cartridge Tester. (4) C Drive Copy Utility. Copies file from one disk to another WITHOUT having to copy file first to your Portable. (5) Other surprise goodies. (6) The PLUS HP Calculator program also comes on this disk.

Portable Pascal Programs
These 600,000-plus bytes of Turbo Pascal routines and documentation for Portable and Portable Plus users include programs that access Portable graphics and sound plus business, statistic, utility, game, and other routines. Great for beginners and professionals alike.

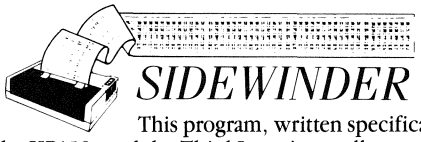
PrimeTime
An excellent time manager for the IBM PC.

PrinterTalk and Format110: MemoMaker Enhancers
These two independently developed programs expand the formatting capabilities of MemoMaker. With PrinterTalk you can change type styles in the middle of a document, change number of copies and lines per page, do automatic page numbering, and much more. Format110 lets you format headers, footers and page numbers; chain or merge documents; compensate for "widow" and "orphan" lines and much more. Purchase both products at the same time and receive a 33% discount (subscribers only).

Private File
Protects your confidential letters, documents, spreadsheets, programs, and data communication files. Private File scrambles your file so only you can unscramble it.

Shelp

Whether you're a Lotus spreadsheet, a MemoMaker memo, or almost any program, Shelp gives you immediate access to a notepad and calculator, and lets you define up to 26 keyboard macros—that is, assign up to 31 characters to a single keystroke. Written exclusively for the Portable PLUS.

SIDEWINDER

This program, written specifically for the HP Portables, the HP150, and the ThinkJet printer, allows you to print your spreadsheets (or any other text file) sideways. This means you can print your 60 column by 40 row spreadsheet on the ThinkJet from your Portable as one long printout without cutting and pasting.

3 Project Management Packages
All 3 work on the HP110, Plus, HP150, and IBM PC. Project 8-9-10, a Lotus template. Helps you manage small to medium projects. Milestone, also for small to medium projects. (On HP110, you need to scroll to see entire Milestone screen.) Pertmaster, for medium to large projects (specify which machine). All three are reviewed in Vol. 1, Issue 6 of The Portable Paper.

RightWriter
Flags errors in grammar, style, usage, and punctuation, inserting comments directly into your document without mistakes. Also produces overall critique of document (strength of delivery, use of jargon, grade level). Uses more than 2,200 rules and a 45,000 word dictionary, and works with most word processors.

Tiger Fox
A great video game of changing mazes and double pursuit. First video game designed for The Portables.

Borland Turbo Pascal —Customized For The Portables
Turbo Pascal, the HP Portable programming language of choice, outstrips others in price, performance, compatibility, memory consumption, and programmer environment. The WordStar-type editor alone is worth the price. Borland has authorized Personalized Software to include an extra disk with their product customizing the Turbo editor to The Portables' editing keys. Also available: Turbo Pascal Toolbox which creates a data base file management system, and Turbo Pascal Tutor 2.0, a step-by-step interactive tutorial on Turbo Pascal programming.

Typing Whiz
Better than almost any typing program on the market—designed specifically for The Portables and the HP150. Immediate numeric and graphic feedback of your progress.

WordPerfect 4.1
Disk based Portable PLUS version of the best selling word processing package. Includes spelling checker and thesaurus.

The Word Plus
An excellent spelling checker with a choice of two dictionaries—45,000 words and 35,000 words—plus the ability to input additional words and abbreviations of your own. Also does word counts. Customized to the HP Portables.

Beyond MemoMaker

You won't believe all the word-processing features this $99.95* program contains—and it takes up less than 40K of memory!
***(only $79.95 for Portable Paper subscribers)**

by Hal Goldstein

Let's face it: MemoMaker is an adequate word-processor, but it has its limits. No search and replace. No simple way to merge files. No destructive backspace key. (To delete the last character, you have to use the left arrow key and the deletion key[s].) No compressed or expanded printing. No. . .—but why go on? If you use MemoMaker, you probably have your own list of things you wish it could do.

Well we have good news! Now there's an easy-to-use text editor that runs on the Portable and Portable Plus that will satisfy almost every item on your wish list. And the program comes with a built-in bonus: It also runs on the HP 150, IBM PC, and HP Vectra, which means that **now you can use the same program and files on your desktop that you use on your Portable.**

The program is called THE EDITOR. It does everything MemoMaker does plus a heck of a lot more. And you don't have to go to the expense of buying WordStar (for the Portable) or MS Word (for the Plus) to go beyond MemoMaker's capabilities.

THE EDITORS's most valuable features are listed on the chart to the right. It's quite a list, isn't it? To me, THE EDITOR is a real blessing. I use it daily instead of MemoMaker, and I've silently given thanks to its author, Ed Gilbert, many, many times. Just a few minutes with THE EDITOR (that's all it takes to be up and running) and I think you'll be a fan of his too.

In addition to the many great features listed to the right, there are five more I especially want to emphasize:

1. THE EDITOR's Lotus-like menus make it incredibly easy to use.

2. THE EDITOR creates ASCII files, which means you can send your files to and from almost any other program or computer without special formats or codes.

3. THE EDITOR will automatically back up your files to protect you against mistakes: When you save a file, THE EDITOR saves not just the current version, but the previous one as well.

4. THE EDITOR takes up less than 40K of memory.

5. THE EDITOR loads and saves files and executes commands exceptionally fast.

RUNS ON:	
HP Portable	●
Portable Plus	●
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  You can specify the number of lines per page, using the control codes required by your printer.
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- **Right justification and automatic paragraph indent.**
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- **Upper/lower case conversion.**
  Another simple command lets you change upper case to lower case and vice-versa without having to retype anything.

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Hal Goldstein

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